THE IMPACT OF POSITIVE AND NEGATIVE LEARNING POINTS IN BEHAVIOUR MODELLING TRAINING

A thesis

submitted in partial fulfilment

of the requirements for the Degree

of

Master of Arts in Psychology

at the

University of Canterbury

by

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University of Canterbury

1987

ABSTRACT

The object of this study was to investigate the differential impact of types of learning points in Behaviour Modelling Training. It was hypothesised that having both positive and negative learning points would result in optimal behavioural and self-report scores on a negative assertion task. Forty-eight female and thirty-two male subjects were randomly assigned to one of four learning point conditions: (1) placebo; (2) positive; (3) negative; and (4) positive and negative. A behavioural measure (Pre-test) and the Conflict Resolution Inventory were given at pre-test. Two behavioural measures (Recall and Generalization) and two self-report measures (The CRI and The Assertive Self Statement Test) were taken post-test. Partial support was found for two of the hypotheses. The negative group differed significantly from the placebo group on the Generalization (D2) measure, and females performed better than males on all behavioural measures.

A post-test analysis indicated that there were no significant between group differences. Although pre-post differences appeared in the CRI, no sex or group differences were found on this or the ASST. Priming effects were probably responsible for the placebo group gains at recall, but the video may have had an impact on the generalization gains. It was concluded that because of rationale, social norms, and measurement issues, coupled with placebo group learning, it was not possible to accept or reject either the experimental hypothesis or the alternative explanation. It was suggested that these issues, and the alternate explanation that negative learning points paired with a positive video would result in optimal gains, be further investigated.

ACKNOWLEDGEMENTS

I would like to thank my friends and family for their support and care during the time of this thesis. Without them, this would not have been possible.

Much appreciation is due to my supervisor Mr Bruce Jamieson for giving me the opportunity to explore my own ideas and for giving guidance and suggestions when necessary.

I would also like to thank the following for their time and expertise; Mr A. Eng, Ginny Ferguson, Mr K. Hlavac, Dr S. Kemp, Philippa Lane, Clare Lange, Mr G. Lewis, Mr J. Pollard, Dr W. Rosenberg, Lynda Simms, Caroline Stacey, Professor K. Strongman, Charlotte West, Lucille Young.

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CHAPTER 1

INTRODUCTION

For generations parents have told their children, "Do as I tell you." And for generations children have done not only what they have been told, but what they have seen their parents do, and have repeated the messages to their own children. Learning by seeing and doing is as old as humankind. In recent years it has become formalized in Behaviour Modelling.

This present study is concerned with adult learning in formal settings. When adults are given a positive model paired with positive and negative instructions, will retention be improved?

Throughout the history of behaviourism the major focus has been on positivity. In the real world and in experimental settings it is likely that admonishments have also occurred although their impact has not been as systematically investigated. Certainly few such studies are to be found in the learning, emotion, assertion, advertising, organizational entry, or Behaviour Modelling Training (BMT) literature.

Behaviour Modelling Training is a technique which can be used to teach new behaviours or skills. It consists of five components: modelling, retention processes, rehearsal, reinforcement, and the transfer of training (Decker & Nathan, 1985). It is the retention component of this technique which is the focus of this study.

This study is presented in seven chapters. The review of the BMT literature in Chapter Two summarizes and

critically examines the findings to date. The object was to present an historical background and then the current literature with special emphasis on the retention studies. This chapter consists of five sections. The first section is introductory. In it BMT is described and defined, and its derivation and other uses are briefly mentioned. In sections 2.2, 2.3 and 2.4 the early BMT field studies, the Latham and Saari (1979) study and the later field studies are reviewed. Current laboratory findings are critiqued in section 2.5. Here, studies which investigated BMT components are examined in detail. As well, procedural, design, gender, and measurement issues are raised.

The rationale for the study and the hypotheses are presented in Chapter Three. This is followed in Chapter Four by a description of the method used in this study. The results which appear in Chapter Five, contain analyses of procedural variables, behavioural and self-report measures, post-test and a posteriori investigations as well as a summary. This is followed by a discussion and conclusion in Chapters Six and Seven respectively.

CHAPTER TWO

LITERATURE REVIEW

This review consists of five sections. The first section is introductory. It will describe and define the components of BMT, outline its derivation and briefly mention the broader context of this training technique before the focus moves to the literature itself. In the next section, the BMT field studies prior to 1979 are central. In section three, the Latham and Saari (1979) study will be reviewed. The findings of the later field studies, with special emphasis on the learning points, will be reported in the fourth section. In the last section, laboratory studies will be discussed. Such studies have examined the rehearsal, feedback, transfer, and retention components of BMT. Each of these will be examined. The focus will be on the retention studies in which learning point type, placement, and source have been investigated.

2.1 Introduction

Behaviour modelling is a technique which claims that learning by seeing and doing may be more productive than learning through instruction alone, especially if the objective is behaviour change. It has been widely used and as it has been modified for use in the context of industrial training, the technique has been renamed Behaviour Modelling Training. The definition and origins of this technique will be briefly discussed before BMT in industrial settings is focussed upon.

BMT in industrial settings is based upon the studies of Goldstein and Sorcher (1974), and social learning theory (Bandura, 1977). Decker and Nathan (1985), state that it "provides behavioural guidance, not a theoretical perspective, about the nature of the task to be taught" (p.16). Effective modelling consists of four processes: attention, retention, motor reproduction, and motivation (Bandura, 1977). Contained within these processes are a sequence of five components (Decker & Nathan, 1985).

1. Modelling. This consists of viewing a performance of the task to be taught, which contains clear examples of the key behaviours or learning points. Learning points are written descriptions of the key behaviours necessary to perform a task which is not currently being performed correctly (Decker & Nathan, 1985, pp. 104-105).
2. Retention. The learning points must be processed and remembered. Retention includes symbolic coding or the formal symbolization of key behaviours which may be aided by their written description, cognitive organization which is the development of codes to fit into the learner's existing cognitive framework, and symbolic rehearsal or the mental practice of the performance (Decker 1980, 1982; Decker & Nathan, 1985).
3. Behavioural Rehearsal. Trainees practise performing this behaviour.
4. Feedback. Trainees receive constructive guidance on how to improve their performance.
5. Transfer. Strategies to enhance the use of the new behaviour in the job setting are included in the

training programme. These may include similarity between film practice setting and the work situation, overlearning of the task, and reinforcement for the performance in the job setting. With the exception of retention, these are also the components outlined by Goldstein and Sorcher (1974).

BMT differs from traditional training methods in its emphasis on behaviour change before attitude change. Since the technique is frequently used to change or to improve interpersonal skills, this emphasis is crucial; because it affects both the order of what is being taught, and how the training is organised, there will be a practical rather than theoretical emphasis (Goldstein & Sorcher, 1974).

Although derived from reinforcement theory, social learning theory explains two things which the former cannot; the speed of human learning, and the evidence of learning without practice. By watching others behave and being reinforced for their behaviour, people can learn vicariously; they can learn the appropriate setting, sequence, and consequences of specific behaviour symbolically through cognitive processes before it is performed (Decker & Nathan, 1985).

Retention, an element from Bandura's social learning theory, and which is one of the component processes in BMT, has been the subject of extensive research (Decker 1980, 1982, 1984; Hogan, Hakel & Decker, 1986; Mann & Decker, 1984), and it is the focus of this current study. Retention brings together the behavioural and cognitive components (e.g. behavioural and mental practice) of the technique and it clearly recognises the role of internal processing (e.g. symbolic coding, symbolic rehearsal, and cognitive organisa-

tion). Decker and Nathan (1985) state that retention should include both dual coding and depth of processing components. That is, the key behaviours should be presented both visually and verbally. They should be distinctive, repeated, and extensively processed.

Individual counselling and industrial training are two of the major contexts in which BMT techniques have been used. In the counselling setting, behaviour modelling has been used to train counsellors (Fyffe & Oei, 1979; Ivey, 1971; O'Toole, 1979) and it has also been used to improve skills deficits in client populations (Edelstein & Eisler, 1976; Hersen, Eisler & Miller, 1974; Wolfe & Fodor, 1977). In this area behaviour modelling has been called micro-counselling, structural learning, social learning therapy, micro-training, and didactic training. Generally learning, but not behavioral change outside the training setting has been measured (Russell, Wexley & Hunter, 1984).

In industrial contexts, BMT has been used to teach interpersonal supervisory skills, while in laboratory settings it has been used to teach manual skills, interpersonal skills and particularly assertive behaviours. In these settings BMT has been called applied learning, interaction management training, and interpersonal skills training. In these studies both learning and on-the-job behavioural change have been measured. For the purposes of this present study, the technique will be called Behaviour Modelling Training because this is the title consistently used by the leading investigator, Phillip Decker, who has carried out four studies and written a book on this topic.

In the research from the industrial area, BMT has been used to train a range of subjects, in a variety of tasks, in different settings, in both laboratory and field studies and using a range of evaluative measures. The research into BMT is of two types, field and laboratory studies.

One type of study, field research, appears in Goldstein and Sorcher's "Changing Supervisor Behaviour"[1] (1974), the Behaviour Modelling Symposium,[2] and also in studies after (1979). In these studies, BMT is typically compared with either a no-training control group or groups receiving some different form of training. Very few of these studies are evaluated with all the four criteria suggested by Kirkpatrick (1976, 1977). Kirkpatrick identified four levels of evaluation of training:

> Reaction or measurement of trainee response to the programme.
>
> Learning or measurement of trainee mastery of the principles, facts and skills taught.
>
> Behaviour or measurement of the transfer of the new skill from the training to the work setting (this can include behavioural measures as well as reports by the trainees, their subordinates, and their supervisors).
>
> Results or measurement of the impact of training on the organization in terms of turnover, costs, efficiency, morale, and production quality and quantity.

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[1] Goldstein, A.P. & Sorcher, M. (1974). Changing Supervisor Behaviour. New York: Pergamon Press Inc.

[2] Kraut, A.I. (1976). Behaviour Modelling Symposium: Developing Managerial Skills via Modelling Techniques: Some Positive Research Findings - A Symposium. Personnel Psychology, 29, 325-328.

Kirkpatrick claimed that the more difficult a level is to measure, the greater the value attached to it. For example, evaluating training by measuring trainee reaction is relatively easy information to acquire, but often it is not a very rigorous measure. On the other hand, evaluation of training directly in terms of organizational results is much more desirable, but much more difficult to obtain (Kirkpatrick, 1976). Kirkpatrick (1977) also distinguished between "evidence" and "proof". To obtain proof he recommended the use of a design which included pre- and post-measures (sometimes repeated measures), and a control group.

The other type of research is the laboratory study. These studies often assume BMT effectiveness - other training techniques are no longer used to make comparisons. Instead the emphasis is on improving the claimed efficacy of the various components of BMT.

The review of the BMT literature which follows will be in three sections; the early and then later field studies followed by the laboratory studies. The most emphasis will be on the latter, particularly on retention studies in laboratory settings. The field studies are separated by the landmark study of Latham and Saari (1979). Since the impact of learning points was the purpose of the present study, their derivation, placement, use and type will be focussed upon.

2.2.1 The Early Field Studies

Goldstein and Sorcher (1974) first published data on the utility of BMT in industry. Concern about high turnover rates at General Electric resulted in a training programme which was evaluated by comparing a group of BMT trained

supervisors and their new employees with an untrained group. Six months later the turnover rate for the untrained group was three times greater than that of the trained group.

2.2.2 The Behaviour Modelling Symposium 1976

The next report of BMT in industry were the four papers published in 1976 from the 1974 BMT symposium (Burnaska, 1976; Byham, Adams & Kiggins, 1976; Moses & Ritchie, 1976; Smith, 1976). The introduction by Kraut, accompanying these papers, clarifies a number of issues. In it, Kraut describes BMT as consisting of watching a modelling film of the new behaviour, practising the new behaviour in role plays, receiving feedback or social reinforcement about performance from peers and trainers, and being encouraged to transfer the new behaviours to the work setting. In other words, the procedure is based on that described by Goldstein and Sorcher (1974). It is not at all clear from reading these papers that each used these four elements; the procedure does not seem to be standardised. Middle managers, first level supervisors or branch managers were trained in managerial skills using BMT, and then compared with untrained control groups on a variety of measures. Training needs were variously assessed; critical incidents (Burnaska, 1976), training needs analysis (Byham et al., 1976) and by observation and questionnaires (Smith, 1976).

Burnaska (1976) compared two randomly selected groups of middle managers at General Electric from eight locations. One group of 62 was trained in managerial skills. The other group remained untrained. The trained group performed better than the other group in roleplay measures one month later and showed an even greater improvement four months

later. However this effect was not generally perceived by employees. When employee perception prior to training and four months after training was compared, in only two of eight locations did employees perceive change.

Moses and Ritchie (1972) compared two matched groups of first level supervisors. One group was trained. Two months later this group performed significantly better than the other group on three role play measures. As well, the performance of 84% of the trained group was rated by the staff at an assessment centre as above average or exceptional, while only 32% of the untrained group were given these ratings.

Byham et al. (1976) matched two groups of eight first and second level supervisors. A 20% random sample of employees were asked for their impressions of supervisor behaviour both before training and six months later. Employee ratings suggested transfer had occurred; the trained group showed pre-post improvement in eight of ten areas and positive gains over the untrained group in nine of ten areas.

Smith (1976) reported two studies. In the first, 18 IBM Branch Managers trained in communication skills were matched with 13 others who had not been trained. The trained group was rated by employees as being significantly more effective at communicating survey results, and were given greater positive ratings than the control group. In the second study Smith used three training procedures. BMT, BMT plus team building, traditional training (which consisted of training in reading and interpreting the information in reports), and a control group. Both modelling groups showed significant improvement on a global communication pre-post

measure. There was a .74 correlation between communications skills and customer ratings of satisfaction, but no within group differences at either four or 10 months after training. However at 10 months after training, the BMT plus team building group showed a 7.9% improvement in sales performance while that of the other groups declined.

2.2.3 Summary of the Symposium Studies

None of these papers used all of Kirkpatrick's evaluation criteria, but taken together these studies assess BMT using three of Kirkpatrick's (1976) levels of evaluation. Three studies evaluated learning using role play measures (Burnaska, 1976; Moses & Ritchie, 1976), or global communication (Smith, 1976). BMT groups performed better than control groups (Burnaska, 1976; Moses & Ritchie, 1976) and better than a group not given BMT (Smith, 1976). Three studies evaluated behaviour by asking for employee ratings. Two of these studies reported positive gains for the BMT group (Byham et al., 1976; Smith, 1976). But Burnaska (1976) reported that employees of trained managers noticed changes in only two of eight locations. One study measured results of training for the organization. Smith (1976) found employees of trained managers had significantly higher morale than those in the untrained group. In his second study, training did not change customer satisfaction, but BMT plus team building improved sales. These findings suggest that compared to no training, BMT has a significant impact on learning, and it may be better than traditional training methods. Furthermore, BMT may transfer to on-the-job behaviour, and in some instances may have a positive impact on the organization.

However these papers suffer from a number of defects. They lack a definition of behaviour modelling, and because they present no evidence to the contrary they may be using unstandardised training procedures. For example Hakel (1976) points out that although Burnaska stated learning points were used, there is little evidence on how they were developed or employed. As well, in Byham et al. (1976) there is a very high baseline measure of the skills trained, which suggests a prior needs assessment may have found training unnecessary (Hakel, 1976). In addition, although there is a lack of evidence to confirm or deny this, it is possible that incorrect statistical manipulation and incorrect interpretation occurred in the Smith (1976) study. For example, it is not clear whether a mean customer satisfaction score was correlated with manager communication skill. The correlation of means is not reported, but if it was used, an r of .743 may be too high. As well, a single concurrent r is not evidence of cause (McGehee & Tullar, 1978).

More importantly, each of these studies used quasi experimental designs such as matching, lack of randomization, lack of pre-test measures. As such, they are difficult to interpret because they lack detail on how threats to internal validity such as practice effects, mortality, selection, interaction with local history, regression, and the Hawthorne effect were controlled. One way around the problem of poor design and the consequent difficulty in attributing the results to the treatment, is to describe these papers as pilot studies (Latham & Saari, 1979).

2.2.4 Learning points in the Symposium Studies

The emphasis on the learning points in these studies was variable. Overall it was not clear whether subjects were given learning points and if so whether this was in a written form, and just when this occurred.

Smith (1976) specified learning points in his two studies and stated that they were derived from observation and customer interview. Burnaska (1976) selected nine training situations from critical incidents, defined and sequenced behavioural objectives for each, and developed learning points from the objectives. We can conclude from Burnaska's (1976) comments in the general discussion of the symposium that these were descriptive (that is, they described the behaviour illustrated in the modelling display), they formed the basis of the modelling display, and were used to direct practice and evaluation. We do not know how this was done, nor do we know whether this was confined to Burnaska (1976) or used by all the participants. Moses and Ritchie (1976) and Byham et al. (1976) did not mention learning points. However, Byham et al. (1976) talked about "critical steps" which were given in written form at the end of each session.

2.3 Latham and Saari, 1979

Unlike the above studies, Latham and Saari (1979) used a true experimental design and measured the impact of training using multiple internal and external criteria. Furthermore they specified the BMT components, procedure, and learning points. Their study was based on Goldstein and Sorcher (1974) and contained the elements outlined by Bandura (1977). The use of learning points was quite clear:

Learning points were presented in the film both before and after the training video was viewed, and personal written copies were given at the end of each session. As well, subjects had input into learning point content. Where necessary learning points were rewritten, added to or deleted. From the example given, rule learning points, that is the principles underlying the desired behaviour, were used. At least one was a negative learning point (for example, learning points on handling employee complaints included "Avoid responding with hostility or defensiveness" (Latham & Saari, 1979, p.241)).

In this study, 40 first line supervisors from an unspecified international company were randomly selected and randomly assigned to either a control or an experimental group. The experimental group was trained in nine supervisory skills such as orienting an employee, over nine weeks. The positive reaction found immediately after training was still found to hold eight months later. As well, the trained group performed significantly better than the control group on an 85 item situational questionnaire and a behavioural role play test. Not only that, significant pre-post and between group differences of supervisors' job behaviours were found using both traditional performance appraisal measures and superintendents' personal evaluations. That is, the trained group not only learnt new skills, but also knew how to apply them in different situations. This change in behaviour was both noticeable to their superiors and also picked up on traditional appraisal measures.

2.4 Later Field Studies

Later field studies typically use managers or supervisors as subjects (Davis & Mount, 1984; Decker, 1982; Hogan et al., 1986; Porras & Anderson, 1981; Russell et al., 1984; Sorcher & Spence, 1982), while one group used sales assistants (Meyer & Raich, 1983). Unlike the earlier studies, BMT is used to train both managerial skills (Decker, 1982; Hogan et al., 1986; Porras & Anderson, 1981; Russell et al., 1984), and diverse tasks such as performance appraisal (Davis & Moir, 1984), sales techniques (Meyer & Raich, 1983), and improved inter-racial behaviour (Sorcher & Spence, 1982). Whereas the earlier symposium studies each evaluated training on one or two of Kirkpatrick's criteria, the later field studies employed three or four criteria each.

Five of the seven studies found there was no difference in reaction between trained and control groups (Davis & Mount, 1984; Sorcher & Spence, 1982) or within differing types of trained groups (Davis & Mount, 1984; Decker, 1982; Hogan et al., 1986; Russell et al., 1984). Porras and Anderson (1981) report positive findings from the trained group but supply little data, and Meyer and Raich (1983) report more favourable attitudes from the trained group nine months later. BMT groups show significant gains in learning when compared with no-treatment control groups (Davis & Mount, 1984; Russell et al., 1984) but when compared with other trained groups the evidence is equivocal. Neither Davis and Mount (1984) nor Russell et al. (1984) found significant differences between types of trained groups on the learning measure. However, Decker (1982), Hogan et al. (1986) and

Sorcher and Spence (1982) found evidence of learning. In terms of job behaviour and organizational results, the impact of BMT is uncertain. Five studies measured job behaviour. They found that while employers of BMT trained managers were sometimes significantly more satisfied (Davis & Mount, 1984), no differences were found between trained groups, or when trained and untrained groups were compared on job performance measures (Davis & Mount, 1984; Sorcher & Spence, 1984), or self or superior ratings or organizational impact (Russell et al., 1984). However a structured interview found positive differences which were significant at the second post-test 20 weeks after training (Sorcher & Spence, 1982). Others reported significant positive changes for BMT trained groups on per hour commissions, turnover (Meyer & Raich, 1983), employee ratings, plant performance, and labour relations (Porras & Anderson, 1981). However both these studies were somewhat problematic; Meyer and Raich (1983) compared matched groups which were nonequivalent at pre-test, and Porras and Anderson (1981) claim that their data are representative of the five plants which participated in the study, but evaluation of only one plant is reported.

2.4.1 Learning Points in the Later Field Studies

Unlike the symposium studies, these later studies are generally specific about the procedure and the learning points which were employed. For example, most of them specified an introduction, a training video, practice, feedback, and all used learning points. The placement of the learning points in the procedure, and the number of viewings of the video differed. For example, sometimes subjects are

given the learning points before viewing the video (Meyer & Raich, 1983; Russell et al., 1984). In other studies subjects are shown the learning points both prior to and following the video (Davis & Mount, 1984). In others they are given them between video viewings (Decker, 1982), and in some placement of the learning points is not specified (Sorcher & Spence, 1982; Porras & Anderson, 1981). Hogan et al. (1986) differed again. They presented the trainee generated learning points after the first of the three different modelling displays. All other studies used a single modelling display. While BMT groups have been compared with either trained or differently trained groups, the efficacy of the components of BMT has largely remained unstudied in the field setting except by Decker (1982) and Hogan et al. (1986).

2.5 Laboratory Studies

On the assumption that BMT is an effective technique for producing behaviour change, a number of laboratory studies and two field studies have investigated the efficacy of BMT components with regard to industrial applications. These studies typically use students as subjects (Decker, 1980, 1983, 1984; Mann & Decker, 1984). Two studies used first line supervisors (Decker, 1982; Hogan et al., 1986). Two studies trained subjects in assertive refusal (Decker, 1980, 1984), handling employee complaints (Decker, 1982; Hogan et al., 1986), coaching skills (Decker, 1982, 1983; Hogan et al., 1986). Assertive requests (Mann & Decker, 1984) have also been taught. These studies have systematically investigated rehearsal, feedback, transfer, and retention components of BMT, and these will be examined briefly in turn.

2.5.1 Rehearsal Studies

Two aspects of rehearsal have been investigated; symbolic rehearsal, and group size of rehearsal. The addition of symbolic rehearsal to the BMT procedure, significantly improved both verbal reproduction (Decker, 1980) and generalization measures (Decker, 1980, 1982). Verbal reproduction and reproduction ratings significantly improved if subjects were in small rather than large groups during rehearsal (Decker, 1983).

2.5.2 Feedback Studies

There has been only one study (Decker, 1983) in which feedback was manipulated. This study found that the group given feedback from other students, the trainer, and video, did better than the group not given video feedback, on two of three reproduction measures.

2.5.3 Transfer Studies

To a large extent it has been assumed in laboratory studies that if a skill is trained on one task and can be generalised to another similar but different task, something approaching transfer has occurred (Decker, 1980, 1983, 1984; Mann & Decker, 1984). One study has replicated some findings from the laboratory (Decker, 1980) to a field setting (Decker, 1982). This was referred to above under Rehearsal Studies.

2.5.4 Retention Studies

Studies investigating the impact of learning points have been the prime type of research in this area and are the focus of this present investigation. Learning points and codes are

interchangeable terms (Decker, 1985). Essentially, learning points are a written and organised representation of the key points of the modelled behaviour. They may influence both attentional and retentional aspects of behaviour modelling (Decker, 1985). Learning point type (Decker, 1980, 1984), learning point placement (Mann & Decker, 1984), and learning point source (Decker, 1980, 1982; Hogan et al., 1986) have all been investigated and each will be covered separately.

Two studies have investigated learning point type (Decker, 1980, 1984). Verbal reproduction was found to be enhanced if descriptive or behavioural learning points rather than rule codes were used (Decker, 1980). When a no learning points condition was compared with rule learning points, summary label, and behavioural (or descriptive) learning points, Decker (1984) reported that having no learning points significantly reduced both recall and generalization scores. Both rule and summary label learning points significantly enhanced generalization, while behavioural learning points improved recall of the modelled performance.

The placement of learning points was varied by Mann and Decker (1984). They found that some learning points are more distinctive than others, and interspersing the learning points within the modelled performance facilitated distinctiveness ratings of four of five, low to medium, distinctive learning points. The interspersing of learning points improved generalization of four of five, low to medium, distinctive learning points, when compared with a group which saw the modelled performance only. However subjects who saw the learning points only did not significantly differ on the recall measure from subjects who saw the learning points and

form of the model. It would therefore appear that learning point placement may not be important for recall, but makes a positive contribution to the generalisation measures, depending on distinctiveness.

Three studies have investigated learning point source (Decker, 1980, 1982; Hogan et al., 1986). Decker reported that trainee generated rule codes significantly delayed verbal reproduction decay, but there was no difference between groups on non-verbal reproduction. There were significant differences between the trainee generated learning point group and the no code group on the generalization measure (Decker, 1980). In a later study, the group which had been given a written form of the learning points and told to rewrite them where necessary, performed better than the group given BMT alone, on the two role play generalization measures (Decker, 1982). This was supported by Hogan et al. (1986). They reported that trainee generated learning points were the superior coding technique and accounted for 78% of performance variance, despite being of similar content but lower quality than trainer generated learning points.

In these retention studies, which have investigated learning points, one group of subjects process or cognitively organize the learning points in some way, while the other group(s) do not. Overall, the group given the opportunity to manipulate or process the learning points performs best. However, this extra processing was in no way standardised across subjects or studies; there was no criterion level subjects had to meet before proceeding with the experiment. Furthermore, until Hogan et al. (1986) it is uncertain whether the results were due solely to the extra processing

some (and we did not know how many) subjects did with the material, or whether they could be explained in some other way. Neither did we know how long this procedure took, nor did we know how many, if any, learning points subjects memorised. Further we did not know when subjects wrote or rewrote the learning points, whether their interpretation was correct, or how this was monitored. We also did not know how subjects in Decker (1980) identified the key behaviours for which they were asked to write the rules.

No earlier study has evaluated the impact of placebo learning points. This present study will rectify that omission. In addition all subjects will be required to process the learning points: they will be asked to memorise and write out the learning points correctly before the experiment will proceed.

In addition, there was some variation in the number and type of learning points employed in the laboratory studies. Eight (Decker, 1983, 1984), seven (Mann & Decker, 1984) and five learning points (Decker, 1982; Hogan et al., 1986) have been reported. Four studies included one negative learning point (Decker, 1982, 1984; Hogan et al., 1986; Mann & Decker, 1984) and one included two negative learning points (Hogan et al., 1986). Although they have been suggested as worth studying, neither negative models (Decker, 1983) nor negative learning points (Russell, et al., 1984) have been systematically investigated. The present study will compare positive, negative, positive and negative, and placebo learning point conditions.

2.5.5 Procedure in Laboratory Studies

Procedures in the laboratory studies were reasonably standardised. Except Hogan et al. (1986), whose subjects were presented with or generated their own learning points after viewing the first of three different modelling displays, all subjects were required to view the same training video twice and between viewings were given the learning points. Often the learning points were written (Decker, 1982, 1983, 1984; Hogan et al., 1986). Sometimes they were placed in the video (Mann & Decker, 1984). Dependent measures were either taken immediately after viewing the video (Decker, 1984; Mann & Decker, 1984), a week later (Hogan et al., 1986), a week after symbolic rehearsal (Decker, 1980) or immediately after symbolic and behavioural rehearsal, and feedback (Decker, 1982, 1983). In the present study, learning points will be given in written form to the subjects and will be presented on the video screen. Immediately following the second viewing of the video, dependent measures will be taken. There will be no rehearsal and no feedback.

2.5.6 Design in Laboratory Studies

Each of the studies with which Decker has been involved has used random assignment with a control group, and post-test measures only were taken. Some studies mention baseline measures of the task being taught (Decker, 1980, 1983; Mann & Decker, 1984) but provided no details, while another pre-tested the distinctiveness of the learning points (Mann & Decker, 1984). This current study will incorporate pre-test behavioural and one self-report measure as part of the experimental design and include a placebo learning point condition.

2.5.7 Sex Differences

Two studies stated that the experimenter was male (Decker, 1982, 1983), one study used both female and male experimenters (Decker, 1984), and in some cases the gender of the experimenter was not mentioned (Decker, 1980; Hogan et al., 1986; Mann & Decker, 1984). When it was measured, sex differences due to the experimenter were not found (Decker, 1983, 1984). Four studies used both female and male subjects (Decker, 1980, 1983, 1984; Mann & Decker, 1984). In instances where the impact of this was measured, no differences were found in the subjects' performance in pilot testing of the task taught (Decker, 1980; Mann & Decker, 1984) and no differences were found at post-test (Decker, 1984). Some studies used female models (Decker, 1980, 1984; Mann & Decker, 1984), one used a male model (Decker, 1983) and in another two studies the gender of the model was not specified (Decker, 1982; Hogan et al., 1986). The impact of the sex of the model, narrator and prompt has not been evaluated.

In the present study it was decided to hold the gender of the prompt (audio and video), model, and narrator constant by having females only. This decision was made because six of seven studies in the assertiveness literature which had used female and male models had found sex differences (Keane, St Lawrence, Himadi, Graves & Kelly, 1983; Kelly, Kern, Kirkley, Patterson & Keane, 1980; Kern, 1982; Lao, Upchurch, Corwin & Grossnickle, 1975; Lewis & Gallois, 1984; Romano & Bellack, 1980), and/or an interactive effect with the sex of the subjects (Kelly et al., 1980; Lewis & Gallois, 1984). As well as this, three of the four studies which had investigated the impact of the sex of the prompt found sex differences

(Edelstein & Eisler, 1976; Hersen, Bellack & Turner, 1978; Pitcher & Meikle, 1980). While only four of twenty-four studies specified the gender of the narrator (Bellack, Hersen & Lamparski, 1979; Green, Burkhart & Harrison, 1979; Levin & Gross, 1984; Lewis & Gallois, 1984), none evaluated the possible impact of this. In this present study subjects will be both female and male. The impact of this will be evaluated.

2.5.8 Task and Behavioural Measures

In two of the laboratory studies (Decker, 1980, 1984), subjects watched a model refuse the request of a friend (negative assertion). Subjects were then asked to replicate the model's behaviour on exactly the same task for the recall measure. However the generalization task differed on two levels: the person making the request was a boss,[3] and subjects were required to swop shifts. Because of the extra possible difficulty in refusing a boss's request (an unequal power situation) (Fowler & Kress, 1979), in the present study the task was the refusal of the request of a friend.

However it was not known what the attitudes of the subject population would be to refusal of requests. In this type of study, subjects are typically given a description of a situation and asked to refuse a request. However, it may be that agreement with a request is not unassertive, but a social norm. Refusal by a friend has been rated more negatively than a friend disagreeing (Lewis & Gallois, 1984). Agreement with the requests of a friend was found to be the norm in Pilot Study 3. Again, in this experiment, subjects will be asked

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[3]Both Decker (1980, 1984) studies say 'co-worker', however the generalization script provided by Decker specifies 'boss'.

their attitudes to lending possessions.

2.5.9 Other Dependent Measures

Except for the reaction to training measures reported (Decker, 1982; Hogan et al., 1986), the Decker studies have generally measured behaviour only. Since both Goldstein and Sorcher (1974) and Bandura (1977) postulated that attitudes would change in order to be consistent with behaviour, it was considered important in this study to measure both behavioural change and attitudes. Consequently this study included the Conflict Resolution Inventory as a measure of self-reported assertion, and the Assertive Self Statement Test, a self-report measure of thoughts while being assertive. In other words, it was considered necessary to assess whether attitudes about assertions changed with behaviour change.

CHAPTER THREE

RATIONALE

The purpose of this study was to evaluate the impact of positive, negative, positive and negative, and placebo learning points on behavioural and self-report measures.

Although the literature review has been critical of some of the earlier studies, not all of these criticisms will be met in this current study. For example, the field studies have frequently used only one or two of Kirkpatrick's four levels of evaluation. This was not a field study and Kirkpatrick's criteria will not be used to evaluate these findings.

This study was based upon that of Decker (1984), whose subjects were asked to perform two post-test negative assertion tasks. However, the present study also included a pre-test negative assertion task, as well as two self-report measures.

Some changes have been made to the design and procedure of that study, and some additional measures have been included. Random assignment was used and the design included group given placebo learning points. Three behavioural and three self-report measures were made. One of the refusal tasks and one of the self-report measures was delivered at pre-test. The other two refusal tasks and the other self-report measures were made after training, thus making it possible to measure difference scores on the behavioural tasks and on one self-report measure. Additionally, all subjects heard, viewed, repeated, memorised and wrote down the

learning points appropriate to their condition. Furthermore, sex differences and attitudes to lending were evaluated. As well as this, a friend made the requests all subjects were required to refuse.

Learning can involve both the acquisition of a new skill, and the extinction of old, undesirable behaviours. Positive learning points (the most frequently used type of learning point) identify new behaviours and ignore existing undesirable ones (Russell et al., 1984). But unless the old behaviour cannot be performed concurrently with the new, both could conceivably coexist. Telling people specifically what to avoid could circumvent this problem. It was considered that having both positive and negative learning points together, that is being instructed about what to do and what to avoid, would provide a more rounded view of the task. This would result in improved performance on the behavioural measure and because attitudes would change to be consistent with behaviour, an accompanying change in self-reported assertions would also be noted.

It was uncertain what impact this would have on the ASST measure, but it was predicted that subjects in the group which received both positive and negative learning points would make more positive and more negative self statements than all the other groups.

It was hypothesised that the group given positive learning points would perform better on the behavioural and CRI measures, and make more positive and fewer negative self statements, than the groups given negative or placebo learning points. As well it was hypothesised that the group given negative learning points would perform better on the

behavioural and self report measures of assertion and make fewer positive and more negative self statements than the group given placebo learning points.

Finally, it was hypothesised that there would be no sex difference in any of the measures.

This reasoning lead to the following hypotheses being tested:

1 (a) The positive negative group will perform better than all other groups on the recall (D1) and generalization (D2) measures.

1 (b) The positive group will perform better on the recall and generalization measures than the negative and placebo groups.

1 (c) The negative group will perform better than the placebo group on the recall and generalization measures.

2 (a) The positive and negative group will self report greater gains in assertion on the CRI measure than any other group.

2 (b) The positive group will report more assertiveness on the CRI than the negative or placebo groups.

2 (c) The negative group will perform better on the CRI than the placebo group.

3 (a) The positive and negative group will make more positive and more negative self statements than any other group.

3 (b) The positive group will make more positive and fewer negative self statements than the negative and placebo groups.

3 (c) The negative group will make more negative and fewer positive self statements than the placebo group.

4 There will be no sex differences found on any of the measures.

CHAPTER FOUR

METHOD

4.1 Subjects

The 90 subjects were female and male stage one students enrolled at the University of Canterbury, who volunteered to take part in the study. To eliminate possible cultural bias, only Caucasion and Maori subjects were included in the sample. In an attempt to cover for subjects who might fail to arrive for the experiment, ten more subjects than were required were accepted. The final sample of 80 subjects consisted of 48 females and 32 males aged 17 to 43 years, with a mean age of 19.8.

Subjects were randomly assigned to groups in the following manner. Each subject's name was printed on a piece of paper. The papers were then placed in a box which was shaken. The first name drawn was assigned to group 1, the second to group 2, the third to group 3, the fourth to group 4, the fifth to group 1 and so on.

Each subject participated individually in an experimental session which averaged 65 minutes in length.

4.2 Design

A three-way factorial design (experimental groups x tests x sex) with repeated measures on tests, and difference scores as the dependent variable, was used to test the hypotheses relating to the behavioural role play measure and the Conflict Resolution Inventory.

There were four treatment conditions (see Table 1).

Table 1 The Experimental Design

	Groups	Introduction	Pre-test	Behaviour Modelling	Post test
1	N = 20 Placebo Placebo Learning Points	Explain procedure and get consent	Conflict Resolution Inventory (CRI) Behavioural Role Play Test (pre-test)	Training Video. Learning points: view, hear, say, learn, recall x 2. Training Video.	Behavioural Role Play Test (recall) Behavioural Role Play Test (generalization) Assertion Self Statement Test (ASST) Conflict Resolution Inventory (CRI) Demographic data, check for reactive effects.
2	N = 20 Positive Positive Learning Points	"	Conflict Resolution Inventory (CRI) Behavioural Role Play Test (pre-test)	Training Video. Learning points: view, hear, say, learn, recall x 2	Behavioural Role Play test (recall) Behavioural Role Play test (generalization) Assertion Self Statement Test (ASST) Conflict Resolution Inventory (CRI) Demographic data, check for reactive effects.
3	N = 20 Negative Negative Learning Points	"	Conflict Resolution Inventory (CRI) Behavioural Role Play Test (pre-test)	Training Video. Learning points: view, hear, say, learn, recall x 2	Behavioural Role Play Test (recall) Behavioural Role Play test (generalization) Assertion Self Statement Test (ASST) Conflict Resolution Inventory (CRI) Demographic data, check for reaction effects.
4	N = 20 N = 10 Positive Negative N = 10 Negative Positive Learning Points	"	Conflict Resolution Inventory (CRI) Behavioural Role Play Test (pre-test)	Training Video. Learning points: view, hear, say, learn, recall x 2	Behavioural Role Play Test (recall) Behavioural Role Play Test (generalization) Assertion Self Statement Test (ASST) Conflict Resolution Inventory (CRI) Demographic data, check for reactive effects.

Subjects had pre- and post-measures taken, and viewed the training video twice. In order to control for a possible order effect, half the subjects (N-10) in Group 4 were given positive learning points first, and then the negative learning points. For the other ten subjects in this group this order was reversed. As well, since subjects in Group 4 had two lists of learning points (positive and negative), they spent more time learning than the other groups. In order to control for time spent learning, subjects in all other groups were presented with the learning points appropriate to their conditions, learnt them and recalled them twice before they saw the video a second time e.g. Group 1 learnt positive learning points, and then repeated the procedure, Group 4 learnt positive learning points and then learnt the negative learning points (see Table 1).

Assertive refusal was chosen as the task to be trained because it is a complex interpersonal skill which has been used in earlier Behaviour Modelling studies employing students as subjects (Decker, 1980, 1984).

4.2.1 Pilot Studies

In preparation for this study, seven small pilot studies were carried out. Briefly these involved:

Pilot Study 1. The script for the training video was tested for authenticity, realism, and negative assertion content before filming.

Pilot Study 2. The training video was rated on assertive, unassertive, and aggressive behaviours.

Pilot Study 3. The training video was rated for realism and negative assertion content.

Pilot Study 4. Experimental procedure was tested. The object of this study was to select the independent variable from a number of options.

Pilot Study 5. The Generalization rating scale was finalised and again used to rate the training video on negative assertion content.

Pilot Studies 6 and 7. The Pre-test, Recall and Generalization role play scripts and subsequent audio tapes were rated on legitimacy of request and difficulty of refusal. Situations of comparable difficulty and legitimacy were selected.

These are summarised in Appendix 1 and are referred to where appropriate subsequently in this chapter.

4.2.2 Independent Variables

There were four treatment groups with twenty subjects in each:

(1) Placebo Placebo learning points.

(2) Positive Positive learning points.

(3) Negative Negative learning points.

(4) Positive Negative learning points,
Negative Positive learning points.

Learning points are written descriptions of specific behaviours which form the essence of the training content. Decker and Nathan (1985) suggested that learning points be derived from a needs assessment and then the training video, and that behavioural role play scoring be matched with them. In this case the video was made and the learning points and the behavioural role play scoring were modified as Pilot Study 4

(Appendix 1)[4] progressed. The original learning points in this study were adapted from those used by Decker (1984). Rule oriented learning points were used because they have been found to generalise better than other types of learning points (Decker, 1980, 1984). Two comparable lists of learning points were constructed, one positive and the other negative. The three major headings used by Decker (1984) i.e. non-verbal behaviour, reactions and verbal behaviour, were retained, and similarly eight specific instructions were listed. These were then used with 29 subjects in Pilot Study 4 (see Appendix 1). The learning point content was modified as the study progressed. The results of Pilot Study 4 (Appendix 1, Table 11) suggested that learning points be used as the independent variable. As well as the positive and negative learning points, other learning points which were unrelated to the task but which appeared plausible, were chosen for the placebo condition. Two negative learning points were included (see Appendix 2)

It is not clear from existing studies whether subjects actually memorised the learning points, whether any check was made that learning had occurred, or what the criterion for such a manipulation check should be.

The results of Pilot Study 4 (Appendix 1, Table 11) suggested that subjects performed better in the role play tests if they formally learnt the learning points, and were then tested on the retention of them. This was included in the procedure.

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[4]The Decker and Nathan prescription was not followed because their book was not available in New Zealand until November 1985.

4.2.3 Training Videotape

The videotape script was adapted from Smith (1975) and was very similar to that used by Decker (1980, 1984). Since students in New Zealand do not generally own cars, the prompt asked for a loan of a bicycle. As well as this positive script where the model's assertive refusal illustrated the learning points, a negative script illustrating non-assertive refusal was also generated. Both scripts were systematically adjusted in Pilot Study 1 (see Appendix 1). The results showed the positive script[5] to be high in realism and somewhat lower in authenticity. Although its overall rating for non-assertion was high,[6] specific content ratings indicated that the learning points were evident in the script. Further adjustments to the script were made by the actresses used in the video. (See Appendix 2 for a copy of the final video script.)

Two videos of about three-minute duration were set in the university library and were filmed in colour. The model in the videotapes was similar to the subjects in status, race and age. She appeared friendly and helpful and she was rewarded for using appropriate behaviour (Decker & Nathan, 1985). The model was seated behind a desk. A low camera shot gave a direct frontal view of her eyes, face and shoulders. The prompt was seen in the opening scene and thereafter was heard but not seen.

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[5]Because it was the version which was finally used, only the results of the positive script will be presented here. The results of the negative script are presented in Appendix 1.

[6]This may be accounted for by the difficulty in visualising non-verbal cues from a written script. This was shown to be the case, when the positive video was rated on assertion, it scored very highly (Pilot Study 3 (see Appendix 1)).

Ratings of the positive training video suggested that it illustrated assertive behaviour (Pilot Study 2, Appendix 1), that it was authentic and that it was rated highly in negative assertion content (Pilot Studies 3 and 5, Appendix 1). Furthermore, on the basis of the findings of Pilot Study 4 (see Table 11), it was decided to discard the negative training videotape and to proceed using the positive training video alone.

4.2.4 Dependent Variables

Six dependent variable measures were used in the present study. These were observational behavioural ratings of three role play exercises, the Conflict Resolution Inventory, and the Assertion Self Statement Test, as well as a final questionnaire which was designed to collect demographic data, and to assess reactive effects.

The observational behavioural measure consisted of ratings of each subject's ability to refuse assertively (as defined by the learning points) persistent requests made in three role play exercises, a pre-test role play, a recall test role play, and a generalization test role play. The role plays were adapted from Smith (1975) and McFall and Marston (1970) (see Appendix 2).

Each role play exercise, consisting of an audiotaped description of the situation and twelve prompt statements, each of which demanded a response from the subject, was delivered over a loud speaker. A remote control pause button ensured the delivery of each prompt statement to suit the timing of the subject's response. In this way, long, awkward pauses were avoided. The prompt was the same person who

acted as the prompt in the videotape. The experimenter narrated the situation.

"Bicycle", "books" and "money" request situations were selected for the role plays because those requests were found to be rated as 'unreasonable'. A similar study found a moderately legitimate request by a friend may be more difficult to refuse than requests of 'low' or 'high' legitimacy (Chiauzzi & Heimberg, 1983). In the present study, refusing bicycle and book requests was seen as reasonably "difficult" (Pilot Studies 6 and 7, Appendix 1). The difference was controlled by counterbalancing the delivery of the 'books' and 'money' requests, so that half of each group had one as a pre-test[7] and the other was used to obtain a generalization score.[8] Since assertive responses to the 'bike' request were modelled in the training videotape, that request was used to obtain the recall score.[9]

Although different refusal situations were used, e.g. 'bicycles', 'books', 'money', the interpersonal dimension remained constant. That is, in each situation it was a friend who made the request.

Tape recorded role play exercises were used because it appeared this method of delivery offered advantages over the use of live prompts. These advantages were reduced anxiety

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[7]This was a baseline measure.

[8]Generalization score was a measure of how well subjects could apply what they had learnt from learning points and training video,to a novel context.

[9]Recall score was a measure of how well subjects could apply what they had learnt from the learning points and the training video in the same situation.

(Galassi & Galassi, 1976), greater consistency,[10] convenience, and the conservation of time and costs.

Subjects were videotaped as they responded to the prompt's demands in each of the role play exercises. These videotapes were rated by two independent trained raters who were blind to the conditions, and who used five point scales of the 10 dimensions represented by the combined positive and negative learning points: eye contact, agitation, empathy, personal attack, lies and excuses, honesty, apology, reaction to criticism, repetition of refusal, agreement with request. The rating scale was adapted from the generalization rating scale (Decker, 1984) and developed in conjunction with the learning points. This scale was used in Pilot Studies 3, 4 and 5 (Appendix 1) to rate the script and video contents, and to score the role plays. As these studies proceeded, the rating scale was modified (see Pilot Study 5, Appendix 1). Scoring was designed so that on a 1-5 scale, one was the optimal rating, and to control for response bias, half the dimensions were reverse scored (see Appendix 2).

The Conflict Resolution Inventory (McFall & Lillesand, 1971) is the only self-report instrument specifically designed to assess negative or refusal assertion, which was the task being taught in this study. It is a 35-item questionnaire which subjects use to rate their ability to say 'no' on five point categorical scales. It also includes nine global items. This unidimensional scale appears to be the

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[10] Beyond stating the live model used a script (Decker, 1984, Mann & Decker, 1984), little data have been presented in either the behaviour modelling literature or the literature on assertion, as to how live prompts were standardised across subjects.

most carefully designed and the most widely used of the assertiveness scales (Beck & Heimberg, 1983). Reliability for the scale has been calculated by Kern and MacDonald (1980) and Galassi, Galassi and Westefield (1978), and these range from .54 at a 10 week interval to .81 at one week. It consistently discriminates between control and experimental groups (Beck & Heimberg, 1983). Kern and MacDonald (1980) report a significant correlation of .51 between the CRI and the College Women's Assertion Scale, while McFall and Lillesand (1971) found a correlation of .68 at pretest between the CRI and the Behavioural Role-playing Assessment Task.

Because of time constraints, the 10 most discriminating items from the full CRI were used (Muehlenhard & McFall, 1983). The average time for the 10 item instrument administered twice was 4.24 minutes, and that of the full 35 item CRI was 14.84 minutes.[11]

The short CRI consists of 10 statements to be rated on a five point categorical scale, plus one global item. For this experiment, items 3, 5, and 8 were altered to give better face validity for New Zealand subjects. For example, roommate became flatmate, dimes became money, cokes became snacks, and a sales contest with a scholarship as the prize became a contest. Scores on this instrument were calculated

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[11] In her personal communication on the matter, Charlene Muehlenhard (August, 1985) wrote that she did not have in her possession the information on how these items were selected, and she would send a copy of my request to McFall. McFall did not reply to it, or the other four letters asking for information concerning the reliability and validity of the short CRI. Therefore the bulk of the psychometric data available on the short CRI are through its derivation from the full CRI. However data from Muehlenhard's unpublished doctoral thesis show that when the short CRI was given to 170 subjects the results formed a normal curve. As well, four of its ten items have the highest concurrent validity with the long CRI (Kern, 1982, p.488).

by summing the number of (a) responses (every situation which could be comfortably refused). The short CRI was administered both before and after the training component in the procedure.

The Assertion Self-Statement Test (Schwartz & Gottman, 1976) was used to assess the functional impact of cognitions of coping with refusal situations when following positive and negative instructions. It consists of 16 positive (PSS) and 16 negative (NSS) self-statements which are rated on 5-point scales of frequency of occurrence (Beck & Heimberg, 1983). 'PSSs are defined as those that facilitate or "make it easier to refuse the request" ... and NSSs as those that interfere or "make it harder to refuse"' (Schwartz, undated, p.2). It has internal consistency reliability of .78 (Bruch, Haase & Purcell, 1984), it discriminates between functional and dysfunctional groups in terms of PSSs and NSSs frequencies (Schwartz & Gottman, 1976), and it is sensitive to some treatment effects (Derry & Stone, 1979). Bruch et al. (1984) found it provided three major factors: (I) negative emotional consequences; (II) rational reasons for refusal, and (III) moral duty to others. Only factors I and II made a significant contribution to a regression analysis. Although the ASST has been used in several studies (Bruch, 1981; Bruch, Heisler & Conroy, 1981; Heimberg, Chiauzzi, Becker & Madrazo-Peterson, 1983) there are no data on norms or test-retest reliability.

Scoring of the ASST is quite simple; the ratings of the PSSs and NSSs are calculated and summed separately. The ASST was administered at post-test only (see Appendix 2).

The final questionnaire was designed to record demographic data and assess reactive effects and the probable incidence of guessing (see Appendix 2).

4.3 Experimental Setting

The experiment was set in the Social Psychology Laboratory, which is a windowless, carpeted, soundproofed activity room with a one-way mirror (in this case it was concealed and not in use). Beyond the mirror is the observation room which contains audio and video equipment and seating (diagram p.42).

4.4 Equipment

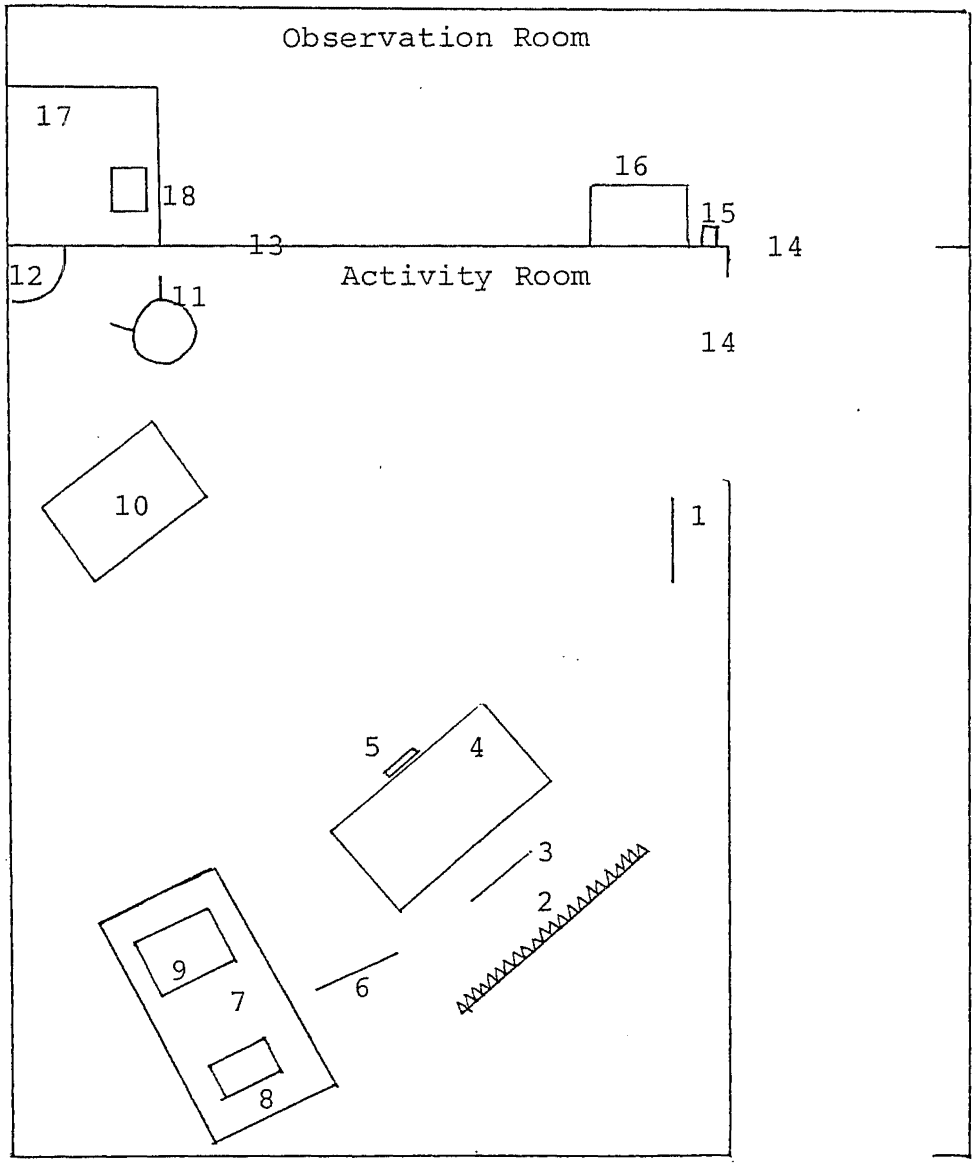
The following equipment was used in the activity room: a video monitor, receiver, and camera; a low table and chair; a table and chair of regular height; a microphone, and a long table which was placed on its side and used to secure the back-drop curtain. In the observation room were a reel-to-reel tape, a remote control pause button, a video monitor and receiver, and the camera controls.

4.5 Procedure

The experiment was conducted in a single 1-hour session with each subject being seen individually, in a 2-room Social Psychology Laboratory. The subjects were greeted, brought into the Activity Room, and were given a copy of the procedure (see Appendix) to read with the following instructions:

> "Hi I'm Dianne Hendey. Thanks for coming. This is an experiment about a particular kind of assertion: saying no. Here is an outline of the procedure we will follow. Please read it through.

Diagram of the Experimental Setting



Key to Diagram

(1) Chair for subject's coat/bag/books, etc.

(2) Backdrop curtain.

(3) Subject's chair.

(4) Subject's desk.

(5) Individual number.

(6) Experimenter's chair (a low chair).

(7) Experimenter's table (a low table).

(8) Experimental paper - questionnaires, procedure, pencil and paper, etc.

(9) Video machine.

(10) Monitor.

(11) Video Camera.

(12) Loudspeaker.

(13) One way vision mirror.

(14) Doors.

(15) Light controls for filming in experimental room.

(16) Reel-to-reel tape.

(17) Camera controls, video machine, monitor.

(18) Remote control pause button for the reel-to-reel tape.

Tell me when you are finished. [Subject reads] Any questions? [Experimenter collects the procedure card]".

Any questions which could be were answered then. Others were deferred until the end of the experiment. The subjects were then given the CRI with the following instructions:

"Please read over the directions and complete the questionnaire. Just go through it quite quickly. Circle your choice. Tell me when you're finished."

When subjects had completed the CRI the following instructions were given:

"In a few minutes I will leave the room and the lights will get brighter. You will hear a situation described over that speaker [indicate the speaker]. Then another person will make requests of you. Each time she makes her requests, there will be time for you to reply. Please respond as if she is in the room with you. Imagine the camera [indicate the camera] is her face. You will be videotaped as you react. Are you OK?"

The experimenter then left the Activity Room and entered the Observation Room. The floodlights were turned up, and the experimenter delivered the audiotape pre-test over the loud speaker, and videotaped the subject's reactions. The floodlights were then dimmed and the experimenter returned to the Activity Room and said:

"Good. That wasn't so bad was it? Now we will view the training video for the first time."

After the videotape was viewed, the experimenter handed the subject the learning points saying:

> "Now here is a card with learning points. Each learning point has one or more specific instructions. Knowing these learning points will help you say 'No' more easily. Please read them over. Tell me when you've finished reading."

When the subjects had read the learning points they were told:

> "After you have seen the next part you will be given further time to learn these points".

Subjects were then asked to look at the screen and to view the learning points. The video content for the learning points was as follows:

> "Please look at the screen. You will see the first learning point says:
>
> 1) Use assertive non-verbal behaviour[12]
>
> that is
>
> - Look at the person when speaking.
>
> Still looking at the screen, please repeat aloud the first learning point.
>
> SUBJECT RESPONDED

VISION AND AUDIO

VISION AND NO AUDIO

---

[12]Positive learning points will be used to illustrate this procedure: The content of the learning points varied with the condition the subject was in, but all other aspects of this procedure were identical in each case.

Now look at your card.

The first learning point is:

1) Use assertive non-verbal behaviour

that is

- Look at the person when speaking

Would you please read the first learning point aloud from your card.

NO VISION, AUDIO PLUS CARD

SUBJECT RESPONDED

NO VISION, NO AUDIO, CARD

Please look back at the screen.

Note the second learning point reads:

2) Act positively

that is

- Keep calm
- Show empathy (for example, understand the other person's needs)

Would you read the second learning point aloud from the screen.

VISION AND AUDIO

SUBJECT RESPONDED

VISION AND NO AUDIO

Now look at your card.

The second learning point reads:

2) Act positively

that is

- Keep calm
- Show empathy (for example, understand the other person's needs)

Please read the second learning point aloud.

NO VISION, AUDIO, CARD

SUBJECT RESPONDED

NO VISION, NO AUDIO, CARD

Now look back at the screen.

The third learning point reads:

3) Use appropriate verbal behaviour that is

- Take responsibility for your decision (for example, be honest, make no excuses, make no apology)
- Accept criticism made of you.
- Keep on refusing the request.

Please read the third learning point out loud.

VISION AND AUDIO

SUBJECT RESPONDED

VISION AND NO AUDIO

And now look at your card.

The third learning point reads:

3) Use appropriate verbal behaviour that is

- Take responsibility for your decision (for example, be honest, make no excuses, make no apology).
- Accept criticism made of you.
- Keep on refusing the request.

Please read the third learning point out loud.

NO VISION, AUDIO AND CARD

SUBJECT RESPONDED.

NO VISION, NO AUDIO, CARD

"Now take some time to learn these points in a way that suits you. There is a pencil and paper if you want it.

You need to remember the learning points and the specific instructions. You do not have to remember the examples. For example, in learning point three you need to remember:

- Use appropriate verbal behaviour[13]
- Take responsibility for your decision.
- Accept criticism made of you.
- Keep on refusing the request.

Tell me when you are ready. When you're ready I will ask you to write from memory what the learning points tell you to do."[14]

Subjects then spent time learning the learning points. When they indicated they were ready they were asked to:

"Turn over your card and paper. Write down the learning points."

When subjects had completed this task, they were told:

"Pass me your paper and I'll check what you've written. Good [you have not done what was required (EXPLAIN ERROR). Would you learn them again please].

Groups 1, 2 and 3 were told:

"Now we will repeat that"

and they repeated the entire procedure. That is they watched the videotape and learned the same learning points again. Group 4 were told:

---

[13] In Groups 1, 3 and 4 the appropriate learning point three was given as an example.

[14] The groups which had negative learning points i.e. groups 3 and 4, were told "write from memory what the learning points tell you to avoid".

"Here is another set of learning points. We will go over them as we did the first set."

And they repeated the entire procedure. They differed from groups 1, 2 and 3 in that if they had initially watched and learnt negative learning points, at the second viewing they watched and learnt positive learning points.

When all groups had learnt the learning points they were told:

"Keep the cards. Now we will see the video again. Focus on the woman in red. Identify the learning points in the video and attend to them. Notice her assertive behaviour."[15]

After subjects had viewed the training video they were told:

"In a few minutes I will leave the room. The lights will get brighter. You will hear two situations described over that speaker. Each time the person makes her requests, there will be time for you to reply. Please respond as if she is in the room with you. Imagine the camera is the person's face. You will be videotaped as you react. Please follow the instructions given by the learning points. The first situation is exactly the same as the video. The other one is different. There will be a gap between each situation. Are you ready? Remember the learning points."

Experimenter left the Activity Room, ran the audiotape and

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[15]The negative group (3) was told "observe the places where she avoids unassertive behaviour". Group 4 was given both instructions "observe the places where she avoids unassertive behaviour: notice her assertive behaviour". The order in which group 4 were given these instructions varied with which subgroup they were in.

videotaped each subject's response. The experimenter then returned to the Activity Room and said:

> "Excellent. Now would you read the directions and fill out these questionnaires please."

When subjects had completed the ASST, CRI and the demographic data questionnaire, they were debriefed as follows:

> "You did well. Thank you for your co-operation. Have you any questions or comments you would like to make about this experiment? This was an experiment about a particular training technique called Behaviour Modelling. There were four conditions. You were in the Positive Positive condition. That is you were given instructions about what to do.[16] Please do not explain the study to any other subject who has not yet participated in the experiment. This is crucial. Thank you again."

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[16] Other groups were told what condition they were in.

CHAPTER FIVE

RESULTS

This study was designed to examine the impact of different instructions on behaviour change and self-report of a modelled event. Six dependent variables were collected. There were three behavioural measures: (1) Pre-test role play; (2) Recall role play; (3) Generalization role play; and three self-report measures: (1) CRI; (2) ASST; and (3) Reactive effects. In addition some demographic data were also collected.

5.1 Procedural Variables

The Pre-test, Recall and Generalization role plays were rated on a 10 item scale. Individual videotaped responses were rated by two independent raters who were blind to the hypotheses (see Appendix 1 for the training of the raters). The total individual score over 10 items was summed and inter-rater reliability coefficients were calculated for each of the three measures. Inter-rater reliabilities were as follows: Pre-test .59, Recall .71, Generalization .77.

For half of each group, the order of delivery of 'books' and 'money' role play tasks was counterbalanced. Half had the 'books' or 'money' role play as a Pre-test, half had the 'books' or 'money' role play as the Generalization test. No significant difference in role play order was found ($(F1, 72) = 1.02$, $p \geq .05$).

Half of the group which received both sets of learning points (Group 4) had the order in which these points were

delivered, reversed. When compared, no significant difference in learning point order was found ($(F1, 72) = .90$, $p > .05$).

None of the groups was significantly different at Pre-test on the behavioural ($(F3, 72) = 2.06$, $p \geq .05$) or CRI measures ($(F3, 72) = .55$, $p \geq .05$).

T-tests of the time difference between Learn 1 and Learn 2 of the learning points, showed no significant difference between the Positive Negative, or Negative Positive Group (Group 4) ($t(18) = 1.10$.

5.2 Behavioural Measures

Difference scores were used in the analyses. Difference 1 (D1) is the difference between the Pre-test and Recall ratings, Difference 2 (D2) is the difference between the Pre-test and Generalization ratings.

The means and standard deviations for the major dependent variables are presented in Table 2.

A sex (2) x group (4) x test (2) Analysis of Variance (with repeated measures on tests) was performed on the Recall (D1) and Generalization (D2) ratings (see Table 3).

Three significant main effects were found. For sex, $F(1, 72) = 6.40$, $p < .05$ females performed better than males on both the Recall (D1) ($t(78) = 3.55$, $p < .01$) and Generalization (D2) ratings ($t(78) = 2.002$, $p < .05$). For groups $F(3, 72) = 2.75$, $p < .05$, the negative learning point group (group 3) performed better than the placebo learning point group (group 1) on the Generalization rating, ($t(38) = 2.10$, $p < .05$). Finally, for tests $F(1, 72) = 103.77$, $p < .0001$, the Recall task was performed significantly better than was the Generalization task ($t(158) = 6.425$, $p < .01$).

Table 2 Means and Standard Deviations for the Behavioural, CRI and ASST Measures by Group and Sex

	Placebo (1)				Positive (2)				Negative (3)				Positive & Negative (4)			
	Female		Male		Female		Male		Female		Male		Female		Male	
Dependent Variables	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
Behavioural*																
Recall Role Play (D1)	12.75	2.95	10.87	4.20	13.08	4.42	9.68	3.73	15.58	4.33	12.25	2.43	15.62	3.80	10.91	6.11
Generalization Role Play (D2)	6.96	5.03	7.87	3.97	9.30	4.83	4.94	4.73	10.91	4.80	9.62	3.41	12.87	2.73	8.56	5.79
CRI																
CRI pre-test	2.83	2.36	4.00	1.85	3.58	2.19	3.12	2.23	3.50	2.06	4.62	3.37	4.80	2.65	3.37	2.06
CRI post-test	4.16	3.21	4.87	2.10	6.16	1.85	5.50	2.44	5.50	2.19	5.37	3.50	6.58	2.60	4.00	2.72
ASST																
ASST P	46.75	9.95	44.00	12.09	43.38	7.73	45.00	11.37	45.83	7.37	43.75	14.52	41.58	12.85	40.12	10.46
ASST N	52.00	7.65	47.00	10.62	46.83	9.33	49.87	6.70	47.41	5.21	45.00	16.44	42.83	6.01	49.62	9.37
	N = 12		8		12		8		12		8		12		8	

*Mean Difference Rating Scores

Table 3 Summary of the Analysis of Variance of the Behavioural Measures by Group and Sex

Source	df	MS	F
Sex	1	204.88	6.40 *
Group	3	87.84	2.75 *
Sex x Group	3	18.96	.59
Error	72	31.99[1]	
Tests	1	677.54	103.77 **
Tests x Sex	1	10.73	1.64
Tests x Group	3	1.42	.22
Tests x Group x Sex	3	6.91	1.06
Error	72	6.52	

** = $p < .01$

* = $p < .05$

[1]Because two tests were used in this ANOVA, the error term used in the later a priori contrasts and the Newman-Keuls Test is half that shown.

A priori contrasts between learning point type were performed (Table 4). Partial support for hypothesis 1c was obtained: The negative learning point group (group 3) performed significantly better than the placebo group (group 1) in the Generalization rating (D2) ($F(1, 72) = 5.11$, $p < .05$).

There was no support for hypotheses 1a or 1b, and hypothesis 4 was also rejected because a significant main effect was found for sex.

5.3. Self-Report Measures

5.3.1 CRI

A sex (2) x group (4) x test (2) Analysis of Variance (with repeated measures on tests) was performed on the CRI measures from Table 2 (see Table 5). A significant main effect was found for tests $F(1, 72) = 61.59$, $p < .01$. Subjects self ratings of assertion were significantly higher after training than before ($t(158) = 4.146$, $p < .01$). Because there were no main effects for sex and group, and no significant interactions, a priori contrasts were not performed. Hypotheses 2a, 2b, 2c and 4 were not supported. Because so many subjects omitted to make a global rating of assertion, this was not analysed.

5.3.2 ASST

A sex (2) x group (4) x test (2) Analysis of Variance was performed on the Assertive Self Statement measures from Table 2 (see Table 6). A significant main effect for tests was found ($F(1, 72) = 5.19$, $p < .025$). Significantly more negative than positive self statements were made ($t(158) = 2.27$, $p < .05$). No other main effects or interactions were found, and consequently a priori contrasts were not performed.

Table 4 A priori Contrasts on Behavioural Measures

	D1			D2		
Condition	df	ms	F_{comp}	df	ms	F_{comp}
Placebo/all	1	33.83	2.115	1	22.75	1.422
Neg/Placebo	1	44.52	2.78	1	81.79	5.115*
Neg Pos/all	1	60.75	3.799	1	36.127	2.259
Pos/Placebo Neg	1	29.20	1.826	1	38.98	2.438
Error	72	15.99		72	15.99	

F crit (1, 72) at .05 = 3.92

*F(1, 72) = 5.115, p < .05

D1 = Recall

D2 = Generalization

Table 5 Summary of the Analysis of Variance for the Conflict Resolution Inventory

Source	df	MS	F
Sex	1	3.15	.29
Group	3	5.03	.46
Sex x Group	3	16.64	1.51
Error	72	10.99	
Tests	1	90.65	61.59 **
Tests x Sex	1	5.55	3.77
Tests x Group	3	3.91	2.66
Tests x Sex x Group	3	.61	.42
Error	72	1.47	

** = $p < .01$

$F_{crit}(1, 72) = 3.92$ ($p < .05$)

Table 6 Summary of the Analysis of Variance for the Assertion Self Statement Test by Group and Sex

Source	df	MS	F
Sex	1	3.62	.04
Group	3	103.74	1.10
Sex x Group	3	101.69	1.08
Error	72	94.08	
Tests	1	538.50	5.19 *
Tests x Sex	1	31.90	.31
Tests x Group	3	26.63	.26
Tests x Group x Sex	3	50.06	.48
Error	72	103.84	

* = $p < .05$

Hypotheses 3a, 3b, 3c and 4 were not supported.

5.3.3 Reactive Effects

An eight item questionnaire was used to assess reactive effects. The first four questions were measured on a five point Likert scale, and low scores were most desirable. Question 2 was reverse scored. These questions were designed to assess the degree of comfort or discomfort in refusal in the first (Q1), second and third (Q2) role plays, helpfulness of training (Q3) and the likelihood of using these techniques outside the laboratory setting (Q4). The other four questions were open-ended. They asked why subjects might or might not use these techniques (Q5), why subjects had responded the way they did in the last two role plays (Q6), what were their attitudes to lending, and what they thought was the purpose of the study.

When a sex (2) x group (4) x test (1) Analysis of Variance was performed on the first four questions (from Table 7), no main effects were found for Q1, 2, 3. A main effect for sex was found for Q4 (see Table 8). Thus there was very little evidence of sex differences and this provides partial support for the hypothesis that no sex differences would be found.

The findings suggest that all groups, regardless of sex, were alike in their reaction to the experiment. They agreed they felt extremely uncomfortable saying "No" in the first role play (Q1, $\bar{x}$ rating 1.96), and that they felt much more comfortable saying "No" in the second and third role plays (Q2, $\bar{x}$ rating 2.012). Training was generally seen as helpful (Q3, $\bar{x}$ rating 1.82), and while most subjects were

Table 7 Means and Standard Deviations for the Subject Reaction to the Experiment By Group and Sex

	Placebo				Positive				Negative				Positive and Negative			
	Female		Male		Female		Male		Female		Male		Female		Male	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
Question 1	1.63	.81	1.25	.46	2.17	.94	2.00	.92	1.83	.72	2.37	1.50	2.17	1.11	2.25	1.49
Question 2	2.00	1.09	2.00	.75	2.08	1.16	2.25	1.03	1.83	.83	1.62	.74	2.00	1.54	2.37	1.06
Question 3	1.64	.67	2.12	.64	1.92	.99	1.75	.46	1.58	.90	2.00	.75	1.83	.72	1.87	.35
Question 4	1.90	.70	2.87	.99	2.08	.79	2.87	.64	2.08	.79	2.37	1.30	2.25	1.42	2.62	1.18

Table 8 Summary of the Analysis of Variance of Subject Reaction to the Experiment

	Source	df	MS	F
Question 1	Sex	1	.006	.01
	Group	3	2.27	2.17
	Sex x Group	3	.75	.72
	Error	71[1]	1.05	
Question 2	Sex	1	.13	.11
	Group	3	.86	.73
	Sex x Group	3	.29	.25
	Error	71[1]	1.18	
Question 3	Sex	1	.72	1.31
	Group	3	.03	.05
	Sex x Group	3	.46	.83
	Error	71[1]	.55	
Question 4	Sex	1	6.99	6.84 **
	Group	3	.23	.23
	Sex x Group	3	.50	.49
	Error	71[1]	1.02	

** $p < .01$

[1]Missing value. Data was not collected from one female subject in the placebo group.

prepared to use the techniques outside the laboratory (Q4, $\bar{x}$ rating 2.3), this was significantly more so for females than males ($F(1, 71) = 6.84$, $p < .01$).

The remaining four questions were investigatory in nature: they were open-ended and were scored separately. Responses to Q5 were divided into positive (reasons for using the techniques) and negative (reasons for not using the techniques). Frequency counts were made of these categories.

All groups had higher positive than negative ratings ($\bar{x}$ pos = 18, $\bar{x}$ neg = 7). There was a between-groups difference in negative ratings; Groups 1 and 4 made $\bar{x}$ 4.5 neg ratings, and groups 2 and 3 made $\bar{x}$ 9.5 neg ratings. This suggests that the placebo and pos/neg groups with high positive ratings and lower negative ratings might be more likely to use these techniques.

Between-group differences were also found in the reasons subjects gave for their behaviour in the second and third role plays (Q6). When frequency counts were made of categories of responses, it was found that group 1 mentioned training specific reasons such as the "techniques", the "learning points", "the video" in 57% of total responses, compared to the other three groups which mentioned such reasons 70% of the time. This suggested that for trained groups, training itself had higher salience than for the untrained group.

An earlier pilot study found that psychology students had very liberal attitudes to lending. Responses to Q7 suggested that this remained so: 90% of groups 1, 2 and 3 subjects were willing to lend things and 100% of group 4.

It is therefore possible that training to refuse to lend was, in fact, breaking a social norm of the sample which was used. This is supported by the finding that 78% of the subjects agreed to the initial request.

Analysis of the results of Q8 suggest that no subject guessed that learning point manipulation was the major independent variable. Frequencies and categories of responses differed between groups. For example 28% of group 1 named "subjects' feelings and reactions" as the purpose of the study, compared with 11.8% of groups 2, 3 and 4 suggesting the same purpose. On the other hand, 40% of group 1 named experimental content (assertion, techniques, teaching) as the purpose of the study, compared with 59% from groups 2, 3 and 4. This suggests that although the placebo group (group 1) learnt, the experimental content was less salient for them than it was for the experimental groups.

5.4 Post-Test Investigations (see Appendix 1)

When the placebo group was compared with all other groups on the post-test behavioural measures, a priori contrasts revealed no significant differences (see Table 4). Three post-test experiments investigated four possible explanations of what appeared to be placebo group learning (see Tables 12 and 13, Appendix 1). The findings suggested that practice effects were probably not occurring. The t-test for repeated measures in the group which responded to three role plays only (group 1) was not significant. Priming was probably responsible for placebo group changes at Recall (D1), since all the groups which were not exposed to priming information were significantly different from the placebo

group. The changes at Generalization (D2) may have been due to the impact of the video since the only group which did not view the video was significantly different from the placebo group (Groups 1 and placebo). Lastly, the placebo learning points and their processing had little impact because no significant differences were found when groups with and without learning points were compared (Groups 2 and 3).

5.5 A posteriori Tests

Quite clearly there was no support for the hypothesis in the manner in which they were framed. An examination of the group means (Table 9) suggested that Groups 3 and 4 might differ from Groups 1 and 2 at Generalization (D2). However, an a posteriori investigation using the Newman-Keuls Test for significance (Keppel, 1973) revealed that there were no significant differences between groups for the Recall measure (D1) or the Generalization measure (D2) (see Table 10).

5.6 Summary of Results

Of the ten major hypotheses, partial support was found for two. The negative learning point group performed significantly better on the Generalization measure (D2) than the placebo group. As well, females performed better than males on the behavioural measures, and significantly more females than males said they were prepared to use the techniques outside the laboratory setting.

There was a significant pre-post gain on the behavioural and CRI measures and significantly more negative than positive self statements were reported on the ASST.

Table 9 Means for the Behavioural CRI and ASST Measures by Group

Dependent Variables		Female and Male			
		Placebo	Positive	Negative	Positive & Negative
Recall (D1)		11.81	11.38	13.91	13.26
Generalization (D2)		7.41	7.12	11.89	10.71
CRI	Pre	3.41	3.35	4.06	4.08
	Post	4.51	4.83	5.53	5.29
ASST	PSS	45.37	44.29	44.79	40.85
	NSS	49	48.35	46.2	46.2

Table 10 A posteriori Tests on the Behavioural Measures

	A_2	A_1	A_3	A_4	r	CR_{N-K*}
D1	234	240	285	290.5		
A_2 234		6	51	56.5	4	65.80
A_1 240			45	40.5	3	60.07
A_3 285				5.5	2	50.80
A_4 290.5						

	A_1	A_2	A_4	A_3	r	CR_{N-K*}
D2	146.5	151	199.5	208		
A_1 146.5		4.5	53	61.5	4	65.80
A_2 151			48.5	57	3	60.07
A_4 199.5				8.5	2	50.80
A_3 208						

*p = < .05

Analyses of the investigatory questions in the Reactive effects questionnaire revealed that training and training content probably had more salience for the trained groups than placebo group, that the sample as a whole had a very liberal attitude to lending possessions and before training generally agreed to requests made of them. It is not possible to state from these data how lending norms would have affected the experiment.

CHAPTER SIX

DISCUSSION

This was a study which examined the impact of positive and/or negative learning points on the acquisition of an interpersonal skill, namely negative assertion, and self-report measures. The findings will be examined in terms of the relevant hypotheses. Possible alternative interpretations of the results will be presented along with discussion of the problems with this present study. This will be followed by a conclusion and suggestions for future research.

Two of the ten hypotheses were partially supported by the data. There was partial support for hypothesis 1c: The negative group performed significantly better than the placebo group on the generalization measure (D2). As well as this, females performed significantly better than males on both behavioural measures. Furthermore, an examination of the cell means of the CRI revealed that females tended to show greater pre-post gains than males, although the difference was not statistically significant. Finally, significantly more females than males stated they would use the techniques outside the experimental setting, thus providing additional support for hypothesis 4.

The superior negative group performance suggested that negative instructions were better than placebo instructions for generalization. However, because none of the other behavioural hypotheses were supported, this finding is of limited value. Alternative explanations will be presented later in this chapter.

When female models are used, we would expect females to perform better than males, as occurred here. Decker and Nathan (1985) note that modelling is improved when the model is the same sex as the observer. Future studies employing female and male subjects should therefore counterbalance or match subject and model gender. Since the results of this study did not indicate what additional impact (if any) female prompt, narrator and experimenter had, further research is required in this area.

Quite clearly there was little support for hypotheses 1a, 1b, 2a, 2b, 2c, 3a, 3b, and 3c. There are four possible explanations for this outcome. First, although not significant, the differences between groups 3 and 4, and groups 1 and 2 on the behavioural measure are meaningful. Negative instruction paired with a positive model may result in optimal generalization. Secondly, the differences referred to above, may be the result of practice effect on the part of the experimenter. Thirdly, these findings are not significant. Positive and negative learning points have little differential effect on the task. Lastly, the sample size may have been too small to show significant results.

The rationale for this study was that the group given positive and negative instructions (Group 4) would have a more rounded view of the task and thus would perform better on negative assertion tasks. This was not supported by the analyses. However, data in Table 9 indicated that groups 3 and 4 had higher (but not significantly so) means than groups 1 and 2 on the behavioural generalization measure (D2). Since 'Generalization is viewed as more important than simple reproduction' (Decker, 1980, p.628), this may be of some importance.

Results from the Post Experimental Study (Table 13) indicated that the video may have been responsible for some of the learning gains of generalization (D2). Both groups with negative instruction (groups 3 and 4) had higher mean scores than the groups without negative instruction (Groups 1 and 2). In addition, the negative group (group 3) performed significantly better than the placebo group (group 1) on the generalization task (D2). In a novel situation such as the generalization task, having both negative instructions and a positive model, may improve performance. Furthermore, being given positive and negative information in different channels (visual and verbal) may result in greater generalization. There are three arguments in support of this possible explanation.

Realistic Job Previews (RJP), where new employees are given facts including negative information about the organization and accompanied by a live or video presentation of the work situation, have been shown to reduce turnover (Reilly, Brown, Blood & Malatesta, 1981). As well, message content (positive and negative) and message medium (live, video, written) may be crucial in RJP, but this suggestion has not yet been systematically investigated (Popovich & Wanous, 1982). It may be essential for positive and negative information to be presented via different media, and failure to do so may result in negative outcomes. For example in one study, negative political posters had a negative impact on both the targeted opponent and the sponsor (Merritt, 1984).

As well it may be important that the negative information is not presented pictorially (Decker & Nathan, 1985).

For example, John Cleese's Video Arts Series (1974) of instructional films e.g. "Man Hunt: The technique of the selection interview", are more memorable for their negative than positive scenes. Lastly it may be that the negative learning points are crucial for the higher means at Generalization. Positive learning points may in fact constrict the possible range of behaviours which could be used in a novel situation. But, negative learning points, which state what to avoid, may be more flexible because they leave open a wide range of options which could be used. Indeed, cognitive psychologists would maintain that people generally have a positive view of the world - The Pollyanna Principle, and against this positive background negativity may impart greater information (Schwartz & Garamoni, 1984). Bandura thought that when given both positive and negative cues, subjects would attend to those most salient to them (Personal communication, August 1985). In this study subjects reported significantly more negative than positive self-statements (Table 7). This suggests that in this experiment subjects paid particular attention to the negative cues.

Alternatively, the group means may differ, but not significantly so, because the experimenter became more practised in running the experiment. Although this appears to be possible with the Recall (D1) and Generalization (D2) measures, this is not supported by any other measures (Table 9).

Lastly, it is possible that the non-significant differences in the behavioural means indicate positive and negative instructions do not effect task performance. Although all groups improved their negative assertion

behaviour and recognised this change in their self-ratings of negative assertion, learning point type (positive or negative) did not result in additional significant gains. Neither the behavioural nor the self-report measures showed within group differences.

An examination of the rationale for this study of negative assertion training and the measurements and proceedure used in this study may explain these results.

First the rationale may have been flawed. Learning points are descriptions of key behaviours that are required to perform a task (Decker & Nathan, 1985). By this definition, learning points are things to do rather than things to avoid. However, to a large extent, instructions for skills training have been viewed as a package (Blampied, personal communication, Dec. 4 1986). The package may include instructions on what to avoid, as for example in studies by Decker (1982, 1984), Hogan et al. (1986) and Mann and Decker (1984). But the instruction itself rather than the positivity or negativity of the language in which it is framed may be the critical factor.

As well as this, social norms regarding the refusal of requests, may have had a major impact. The behavioural measures rated negative assertion behaviour. The CRI asked subjects to predict how they would react, while the ASST asked subjects to rate their thoughts and feelings in a situation requiring refusal. The object of negative assertion training is to say 'No' to an unreasonable request and feel comfortable with that decision. However in this study 78% of the subject sample agreed with the requests at pre-test, and a majority, 95% of all subjects, were willing to lend

possessions post-test. While no subject agreed to the request at recall, 5% agreed at generalization.

It is possible that while subjects complied with the requirements of this study, the task of refusing requests was irrelevant to them. The logic behind negative assertion training does not consider that subjects may agree to requests (especially those made by friends) and feel comfortable about agreeing, even though those requests may have been rated as unreasonable. Indeed, Lewis and Gallois (1984) found that 'refusals' by friends are rated more negatively than friends 'disagreement' or 'expression of negative feelings'.

Apart from the rationale there were measurement and procedural difficulties. There were problems with both the behavioural rating scale and the self-report measures.

To begin with, the observational behavioural scale used to rate negative assertion behaviour may be accused of circularity. It measured the same content as was taught (Decker, 1980). On the other hand, it may be difficult to design a content valid measure which is not circular (Decker, 1980). However in this study, the post-experimenter findings indicated it was the video not the learning points which made the major contribution to the generalization score.

As well as this it may have been improper to use a scale designed to rate generalization (Decker, 1984), to measure pre-test and recall behaviour. On the other hand it was important that the three measures be comparable. A solution may have been to include in the scale behaviours which were not specifically mentioned in the learning points but were relevant to the refusal task, for example the number of prompt statements made before the subject agreed to the request.

Furthermore, some dimensions of the rating scale were difficult to operationalize. For example the operational definition of 'empathy' included specific phrases and statements, but did not include paralinguistic and non-verbal behaviour. As well, raters found some dimensions difficult to distinguish. For example 'I need it myself' was rated as a 'lie', while 'I may need it myself' was rated as 'honesty'. Consequently inter-rater reliabilities were low, especially at pre-test. Seventy-eight percent of subjects agreed to the initial request and when they agreed pre-testing stopped. This resulted in a slight change in the rating procedure. Because the videotapes of subjects agreeing with the request were very brief, only ' looking', 'empathy', and 'agreement with the request' dimensions were able to be rated. This change in procedure may have been sufficient to result in the especially low reliability at pre-test. Clearer definitions and improved role training could rectify this problem.

There were problems too with the self-report measures. While the CRI showed significant pre-post gains, neither it nor the ASST yielded sex or between group differences. Although it is possible that there were no sex or group differences to find, it is also possible that the CRI was not sensitive to group (Kazdin, 1982) or sex differences. Of the studies which used the CRI to measure sex differences (Kazdin, 1976, 1982; Galassi, Galassi & Westefield, 1978; Twentyman & Zimering, 1979), differences were found in only one study, Galassi et al. (1978). They reported males were more assertive than females. The ASST does not appear to have been used to measure sex differences.

On the other hand, these measures may have been used improperly. Generally the CRI has been used to allocate subjects into high, medium or low assertion groups (Chiauzzi & Heimberg, 1983; Schwartz & Gottman, 1976) or as a pre-post measure (Muehlenhard & McFall, 1983). In the ASST studies, a battery of tests, including the ASST was completed. Usually the unassertive group differed from the assertive group by making greater numbers of negative self-statements (Bruch, 1981; Heimberg et al. 1983; Pitcher & Meikle, 1980; Schwartz & Gottman, 1976). Except for the Muehlenhard and McFall (1983) paper on the impact of differential delivery of training, subjects in ASST studies were not given any specific training. In Muehlenhard and McFall (1983), as in the present study, no between group differences were found using the ASST. The present study did not pre-select subjects on the basis of levels of assertion. Thus the insignificant group and sex differences of the CRI and ASST may have been due to this procedural change.

Although significantly more negative than positive self-statements were reported, it is unlikely that this is an indication that the groups were low in assertion (Schwartz & Garamoni (1984). The pre-post gains on the behavioural and CRI measures would dispute that. The ASST may be an instrument of questionable utility.

Finally there are two major procedural issues which should be considered, namely placebo group learning and the processing of the learning points. This study was the first BMT study to employ a placebo learning point group. The three Post Experimental Studies suggested that priming was responsible for placebo group improvements at recall, and

that the impact of the video accounted for the generalization gains. In this instance, priming resulted from telling subjects the experimental task would be assertion training (at recruitment, when the session time was arranged, in directions to the laboratory, and within the experimental instructions).

It may be extremely important to include this type of control in experimental research in this area. First, it indicates just how difficult it is to prevent the human organism from learning. By making use of such information, the time and cost of such training could be reduced. As well, the inclusion of a placebo group made it possible to formulate a plausible explanation for the major findings.

Lastly, it is possible that small cell sizes were responsible for the non-significant findings. For example, an examination of the table of means (Table 9) and the Newman-Keul results (Table 10) suggest that the measures from groups 3 and 4 are in the right direction to support the first alternative explanation. The results may have been significant if cell size was greater. This explanation is not, however, supported by the cell mean for the CRI (Table 9).

The results of the post experimental analysis suggested that having instructions and processing them gave no additional advantage to the placebo group (Table 13). The group without learning points did not differ in performance from the placebo group. Neither was the placebo group significantly different from all other groups combined (Table 4) or when it was compared with the other groups singly with Newman-Keul's tests (Table 10). Predictions about the

learning points and their processing were not supported by the results of this study. However this conclusion would carry more weight if learning point retention had been formally measured again after the third role play.

CHAPTER SEVEN

CONCLUSION

The purpose of this study was to investigate the differential impact of positive and negative learning points on a negative assertion task. It had been hypothesised that having both positive and negative learning points would result in optimal gains on all measures. Although one of the three behavioural hypotheses received partial support, in all other instances this was not the case. There was somewhat more support for the hypothesis that there would be no sex differences found in any of the measures.

Because of flawed rationale, the uncertain impact of social norms on requests made by friends, measurement problems and placebo group learning it is not really possible to discount the impact of positive and negative learning points on negative assertion. Nor is it possible to claim that it was the negative learning points together with the positive video which were crucial for learning to occur.

However it must be remembered that although the hypotheses were not supported, subjects' refusal behaviour and their self ratings of it showed significant pre-post gains and thus support the BMT concept. As well, further research is required to clarify the following four issues. First, the theoretical concept of negative assertion may need further definition. Currently the concept does not cater for subjects who agree and feel comfortable. Secondly the social norms involved in request situations (especially requests by friends) need further investigation. At present

we do not know whether such norms have changed historically, or differ cross culturally. Thirdly, the utility of the ASST is questionable. It measures neither sex nor group differences (unless the groups are pre-selected into low, medium or high levels of assertion). Finally, the impact of sex differences in prompt, narrator and experimenter in BMT studies is unknown. In this study the sex of the model, prompt, narrator and experimenter were controlled. The probable impact of the sex of the model can be accounted for, but the separate effects of the other variables need further research.

This study did not answer the experimental question of whether positive and negative learning points would result in optimal gains in a negative assertion task. However, it gave rise to several other questions. Consequently the study may be a valuable source for future research.

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APPENDIX 1

Pilot Study 1. Ratings of the Scripts.

Pilot Study 2. Ratings of the Training Videos for Assertive, Unassertive and Aggressive Behaviours.

Pilot Study 3. Realism and Content Ratings of the Training Videos.

Pilot Study 4. A Trial of Experimental Procedure.

Pilot Study 5. Final Testing of the Generalization Rating Scale with the Positive Training Video.

Pilot Studies 6 and 7. Equivalence Across Role Play Scripts and Audiotapes.

Rater Training

Post-Experiment Studies. Placebo Group Learning.

PILOT STUDIES

The Training Video

Originally two training videotapes were made, one showing a model successfully refusing a request (the positive training video) and another showing a model who agreed to the request (the negative training model). Before these videos were filmed, considerable development work was carried out to match the existing positive script (Smith, 1975, used also by Decker, 1980, 1984) to New Zealand conditions, and to make the negative script (written by the experimenter) more convincing. The prompt lines remained constant in both scripts.

Pilot Study 1. Ratings of the Scripts

There were five major aims in this study.

(1) To investigate the authenticity and realism of the scripts.

(2) To decide whether the script needed changing and if so what changes and where.

(3) To determine whether the positive script was rated as assertive overall, and the negative script rated as aggressive and/or unassertive overall.

(4) To determine whether the learning points were evident to subjects who read the scripts.

(5) To examine student attitudes to lending possessions.

Twenty-seven subjects (19 women and 8 men) individually read and rated one of the scripts. Scripts were revised as the study proceeded. Subjects were asked to identify which subject lines in the script needed changing and to make those changes. Where more than one subject agreed a line or word needed changing, those

adjustments were made. This resulted in many initial changes and few later changes. Subjects then evaluated the scripts on positive and negative learning points or negative assertion content, using a reverse scored 17 item five point rating scale derived from Decker's (1984) Generalization Rating Scale, and this was the first version of the Behavioural Rating Scale used to rate the role plays.

More people rated the negative script as authentic then unauthentic, but the opposite was found for the positive script. The mean rating of the negative and positive scripts on realism were 2.7 and 2.5 respectively (this was on a 1-5 scale with 1 being the most realistic). The negative script had low ratings on assertion and high ratings on non-assertion and aggression, while the positive script was rated highly on both assertion and non-assertion. On the content rating scale, which was a measure of the presence of the respective learning points or negative assertion (an average score of five or one was optimal for the negative and positive scripts respectively), the negative script had a mean rating of 3.44, and the positive script was rated at 2.1. There was a significant difference in the content ratings of these two scripts on negative assertion $t(12) = 7.485$, $p < .001$. Only one of the fourteen subjects who were asked about their attitudes to lending would refuse to lend possessions. The actresses also adjusted the script to enhance realism.

See Appendix 2 for a copy of scripts. Although ratings for the positive script on authenticity and unassertive behaviour were disappointing, the content ratings using the Generalization Rating Scale were excellent. On the basis of these findings it was decided to proceed with the filming.

Pilot Study 2. Ratings of the Training Videos for Assertive, Unassertive and Aggressive Behaviours.

Videotapes were filmed from the scripts developed in Pilot Study 1. A study was then carried out to determine whether assertive, unassertive, and aggressive statements were visible in the positive and negative training videotapes, and to see whether there was agreement about which statements were covered by the definitions "assertion", "non-assertion", and "aggression". Ten subjects (nine female and one male) were asked to rate on a seven point semantic differential scale how well fifteen statements described the behaviour of the model, and to then indicate which of these same statements were covered by a definition of "assertion, "non-assertion", or "aggression". Some elements of the rating scale were reverse scored. There was a significant difference between the two videos on the presence of assertion, non-assertion, and aggression to $t = 15.13$, $p < .001$. In addition, there was agreement about which statements were part of the definition of "assertion", "non-assertion", and "aggression". An average of five subjects chose assertive statements, nine chose unassertive statements, and eight chose aggressive statements as parts of the respective definitions. Assertive statements were linked with the positive training video while aggressive and unassertive statements were associated with the negative video. It was considered from this study that the positive training video illustrated behaviours contained within the definitions of "assertion", and the negative training video illustrated non-assertion and aggressive behaviours.

Pilot Study 3. Realism and Content Ratings of the Training Videos.

The videotapes were then rated by ten subjects (seven female and three male). They completed a five point scale on realism and the second version of the Generalization Rating Scale (which was used in Pilot Study 1) and which measured learning point or negative assertion content. Five subjects watched each of the videos. The positive video had a mean realism rating of 2.4 (1 as the most realistic, 5 the most unrealistic) and the negative video was rated as 3. There was a significant difference between the two videos on the content rating of negative assertion, $t = 14.07$, $p < .001$. The average rating for the positive video across the 20 items was 1.88, and that of the negative training video was 3.19. (A 1-5 scale was used. A score of 1 was optimal for the positive video, and 5 was best for the negative video.) Although the realism scores were disappointing, the content ratings were excellent. Negative assertion was present in the positive training video and much less so in the negative training video. Nine of the ten subjects indicated they would be prepared to lend their bicycles.

Pilot Study 4. A Trial of Experimental Procedure.

The general purpose of Pilot Study 4 was to test the experimental procedure and the specific objectives were to:

(1) Compare different types of learning points while using the positive training video.

(2) Compare the impact of the positive training video versus the positive and negative training videos together, while using positive learning points.

(3) Compare the learning of the learning points with the viewing only of learning points.

(4) Select the most effective learning points.

(5) Finalize the items in the Behavioural Rating Scale.

(6) Trial the self-report measures.

(7) Check the procedure.

Twenty-nine subjects participated in this pilot study, which employed the same general procedure as was finally used in the main experiment. Difference scores were used with the behavioural measures. Difference 1 (D1) was the mean difference between the Pre-test Role Play and the Recall Role Play. Difference 2 (D2) was the mean difference between the Pre-test Role Play and the Generalization Role Play.

The findings in Table 11 suggested that manipulating the video may be unproductive since this group (5) had very low difference scores on the behavioural measures compared with group 2. The results also suggested that although the CRI measure in the view only group (4) improved slightly, the behavioural role play measure markedly declined when the learning points were not learnt (compare groups 2 and 4). The findings hint that differences between groups may be found on the basis of type of learning point given (compare groups 1, 2 and 3). It was therefore decided to use positive and negative learning points as the independent variable and for all groups to view the positive training video. See Appendix 2 for a copy of the learning points.

Table 11 Conditions and Results of Pilot Study 4

Measures	1		2		3		4		5		6	
	Positive & Neg. Learning Points, Positive training video, Learning		Positive Learning Points, Positive training video, Learning		Negative Learning Points, Positive training video, Learning		Positive Learning Points, Positive training video, No learning		Positive Learning Points, Positive & Neg. ing video, Learning		No Points, Positive video, No learning	
	N = 7		N = 9		N = 5		N = 4		N = 3		N = 1	
	D1*	D2*	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
Mean difference score on the behavioural measures	21	17.86	20.22	18.11	16	10.6	7.5	4.25	8.6	.33	10	8
	N = 3		N = 2		N = 3		N = 3					
Mean ASST	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos				
	45	41.6	38	49	48	42.3	46.33	51				
	N = 8		N = 5		N = 3		N = 3					
Mean CRI difference score	.625		1.4		.66		1.66					

*D1 = Difference 1 - the difference between Pre-test and Recall Role Plays

*D2 = Difference 2 - the different between Pre-test and Generalization Role Plays.

Recall was a role play exactly the same as that shown on the training video. Generalization was a role play which was similar to, but different from, the Recall role play.

Pilot Study 5. Final Testing of the Generalization Rating Scale with the Positive Training Video

Although the positive and negative learning points each consisted of six instructions, the Generalization rating scale consisted of 10 dimensions scored on a 5-point Likert scale. In some cases the same dimensions could be used to score both positive and negative learning points e.g. Items 3, 4, 5, 6, 9, and 10. Items 1 and 7 were used to rate positive learning points, and Item 8 to rate negative learning points. Item 3 was included to cater for a special group who were found to agree with the request during the pre-test role play. The scale was designed so that negative assertion behaviour would be rated as one and unassertive, or aggressive behaviour, would be rated as five. Half the items were reverse scored (see Appendix 2).

Twenty subjects (nine female, eleven male) used this final form of the generalization rating scale to rate the positive training video. It was found that on eight of the ten dimensions the video was rated at a mean of 1.45 or less, one dimension (empathy) was rated $\bar{x}$ 2.2, and one (apology) at $\bar{x}$ 3.5. The average rating was 1.7.

These findings suggest that learning point content, or negative assertion, was highly visible in the training video; the video is a superb example of negative assertion as it is defined by the learning points used in this experiment with the possible exception of the apology dimension.

Pilot Studies 6 & 7. Equivalence Across Role Play Scripts and Audiotapes

Four possible refusal situations were generated.

Scripts of requests to borrow a bicycle (Smith, 1975), to borrow money (McFall & Marston, 1970), to return books to the library (McFall & Marston) and to swop shifts (McFall & Marston) were devised. Each consisted of a description of the situation, which was delivered by the experimenter, and 12 equivalent prompt lines spoken by the same prompt as in the training video. The request to borrow a bicycle was exactly the same as that in the training video. Both the written scripts and the audiotaped situations were rated on the legitimacy of the requests and the difficulty of refusal of those requests. In Pilot Study 6, 20 subjects (15 female and 5 male) read the scripts rating these two dimensions on 1-7 semantic differential scales. Requests about bicycles, books, shifts, and money were viewed as similarly unreasonable, with money being rated the most unreasonable. Refusal of bicycle and book requests was rated reasonably difficult, the refusal of money more difficult and the refusal to swap shifts was easier. In Pilot Study 7, 9 subjects (5 females and 4 males) assessed the audiotapes on the same dimensions. Bicycle, books, and money requests were viewed as moderately unreasonable. It was reasonably difficult to refuse these three requests. Requests about shifts were seen as less unreasonable and easier to refuse. As a result of these two pilot studies, books, bicycle, and money situations were selected for the pre- and post-test audiotapes (see Appendix 2 for a copy of audiotape role play scripts.

Rater Training

Two raters, blind to the rationale of the study, independently rated their impression of the role plays on a 5-point Likert scale covering the 10 dimensions representing the learning points.

The raters were trained in three, two-hour sessions. During training, raters rated role plays from Pilot Study 4. The first session covered the building layout, equipment use and safety, and practice with the rating scale. This focused on rating a "yes" response to the request. In this situation the first three items were scored and the rest rated as "not present". At the completion of the second session, raters could distinguish and accurately rate all dimensions. "Refusal", "apology", "lying" and "honesty" were targeted in this session. Speed of rating improved and the recognitions of nonsequenced subjects was taught in session three, along with a review of the rating scale.

Weekly checks for accuracy and reliability were made over the three-week duration of rating, and where necessary revision occurred.

Post Experiment Studies. Placebo Group Learning

Because the placebo group's recall and generalization measures differed from the pre-test results, four possible explanations were examined: (1) priming effects; (2) impact of the video; (3) practice effects; and (4) processing of the learning points. Three post-test studies were conducted. Each consisted of six subjects, randomly selected from an introductory psychology class. None of these subjects had previously been exposed to recruitment for the major study, and none guessed what the training would be. All three post-experiment tests differed from the placebo group in that all reference to the nature of the training was removed from subject recruitment, directions to the laboratory, and subject instructions within the study. The tests differed from each

other in the following manner:

(1) Subjects responded to the three role plays - no video, no learning points - practice effect.

(2) Subjects responded to one role play, saw the video twice, and then responded to the other two role plays - no learning points.

(3) Subjects differed only from the placebo group in that priming effects were controlled for (see Table 12).

Repeated measure t-tests were performed on each group. The findings suggest that practice effects can be ruled out as the reason for the placebo group learning. Between-group comparisons were made using t-tests. The Recall measure (D1) was sensitive to priming in all groups (all groups significantly differed from the placebo group - see Table 13), and the absence of the video had an impact on the Generalization measure D2 (only the group which did not view the video was significantly different when compared to the placebo group). The findings also suggest that the learning points and their processing did not have much impact on the placebo group's behaviour because when groups 2 and 3 are compared (one group with learning points, the other without, and both with priming controlled) they do not differ significantly, at both Recall (D1) or Generalization (D2). These last results also suggest that depth of processing is not an alternative explanation. It was concluded that priming had probably occurred, that the video probably had a major impact on the generalization task, and that the placebo instructions appeared to have no impact at all.

Table 12 Post-Experiment Design and Results

	Intro.	Pre-test	Behaviour Modelling	Post-test	t-test for repeated measures
Group 1 N = 6	Recruitment, directions to lab. & subject instruction. Do not name assertion as the task taught.	Role Play	———	Role play recall (D1) Role play generalization (D2)	D1 = not sig. $\bar{x}_{D1} = 4.66$ D2 = not sig. $\bar{x}_{D2} = -.83$
Group 2 N = 6		Role Play	Training video Training video	Role play recall (D1) Role play generalization (D2)	D1 $t(5) = 5.79$, $p < .01$ (t cnt = 4.03) D2 = not sig. $\bar{x}_{D1} = 8.66$ $\bar{x}_{D2} = 3.66$
Group 3 N = 6		CRI Role Play	Training video Learning points x 2 Training video	Role play recall (D1) Role play generalization (D2) ASST CRI Reactive effects	D1 $t(5) = 9.6$, $p < .01$ (t cnt = 4.03) D2 = not sig. $\bar{x}_{D1} = 8.5$ $\bar{x}_{D2} = 2.6$
Placebo N = 20	Recruitment, directions to lab. & subject instruction. Do name assertion as the task taught.	CRI Role Play	Training video Learning points x 2 Training video	Role play recall (D1) Role play generalization (D2) ASST CRI Reactive effects	D1 $t(19) = 15.61$, $p < .01$ (t cnt = 2.86) D2 $t(19) = 7.038$, $p < .01$ (t cnt = 2.86) $\bar{x}_{D1} = 12.5$ $\bar{x}_{D2} = 7.25$

Table 13 Between-group t-tests: Comparisons of post-test studies with the placebo group - 2 tailed

	D1 Recall	D2 Generalization
Placebo vs. Group 3	$t(24) = 3.12$, $p < .01$ t crit = 2.80 Placebo better	$t(24) = 1.647$, $p > .05$ t crit = 2.06 not significant
Placebo vs. Group 2	$t(24) = 2.06$, $p < .05$ t crit = 2.06 (Placebo better)	$t(24) = 1.56$, $p > .05$ t crit = 2.06 not significant
Placebo vs. Group 1	$t(24) = 2.60$, $p < .05$ t crit = 2.06 (Placebo better)	$t(24) = 3.55$, $p < .01$ t crit = 2.80 significant (Placebo better)
Group 2 vs. Group 3	$t(10) = .092$, $p < .05$ t crit - 2.23 not significant	$t(10) = .650$, $p > .05$ t crit = 2.23 not significant

Appendix 2

The Script for the Positive Training Videotape.

Positive Learning Points.

Negative Learning Points.

Placebo Learning Points.

Audiotape 'Books' Script.

Audiotape 'Money' Script.

Audiotape 'Bicycle' Script.

Pre-test, Recall and Generalization Rating Scale.

Conflict Resolution Inventory.

ASST.

Reactive Effects Questionnaire.

1

The Videotape Script

Situation:

Saying NO to a friend who wants to borrow a bike.

Setting:

Subject is in the library when another student approaches her and sits down. Both are women.

Subject: [PEN IN HAND. LOOKS AT PROMPT AND SMILES]

Prompt: Boy am I glad to see you. I've got a problem and I was afraid I wouldn't find anyone to help.

Subject: [LOOK AT PROMPT.] Oh, what?

Prompt: Can I borrow your bike?

Subject: Ah [LOOK AT PROMPT.] That is a problem. I don't want to lend my bike today. [LOOK AT PROMPT.]

Prompt: Why not?

Subject: [LOOK AT PROMPT.] I know that you need it [NOD HEAD UP AND DOWN.] But I don't want to lend my bike today. [LOOK AT PROMPT.]

Prompt: Do you need it yourself?

Subject: [LOOK AT PROMPT.] Yes, maybe. [LOOK AT PROMPT.]

Prompt: Well, when do you want it? I'll get it back to you on time.

Subject: [LOOK AT PROMPT.] I know that you would [SMILE] But I just don't want to lend my bike today.

Prompt: I don't understand. Whenever I've asked to borrow your bike before, you've always lent it to me.

Subject: [LOOK AT PROMPT.] Yes, I have, I know.

Prompt: So what's the difference? Why won't you lend it to me today? I wouldn't do anything to your bike.

Subject: I know you wouldn't [LOOK AT PROMPT - LOOK AWAY] and I can see you've got a problem. [LOOK AT PROMPT.] But I don't want to lend my bike [LOOK AT PROMPT].

Prompt: Look. I'm careful. I've never done anything to your bike before, have I?

Subject: No, that's true. [SMILE, LAUGH - LOOK AT PROMPT.] But when I lend my bike [LOOK AWAY] I worry, and I don't want that worry today. [LOOK AT PROMPT - SHAKE HEAD.]

Prompt: But I'm not going to lose it or anything.

Subject: [LOOK AT PROMPT.] I know, and it's probably stupid to feel this way, but I do. (LOOK AT PROMPT.]

Prompt: Well, if it's so stupid, why won't you lend it to me?

Subject: [LOOK AT PROMPT] Yes, it is stupid [LOOK AWAY - LOOK AT PROMPT] But I don't want the worry today.

Prompt: But I'm not going to do anything wrong.

Subject: I know. [LOOK AT PROMPT.] Look it's not your problem, it's me; [LOOK AWAY - LOOK BACK AT PROMPT.] When I lend my bike I worry and I don't want that worry today so I'm not going to lend it.

Prompt: All right, all right, I suppose I know how you feel. Sometimes I don't want to lend things either.

Subject: Oh [LOOK AT PROMPT] I'm glad you understand [SMILE - LOOK AWAY].

Prompt: Oh, that's all right. I'll catch up with you later - I guess I can borrow someone else's bike.

Subject: [LOOK AT PROMPT] OK. See you later [NOD, SMILE - LOOK AT PROMPT, THEN LOOK DOWN AT WORK ON DESK.]

Prompt: Bye.

LEARNING POINTS

1) USE ASSERTIVE NONVERBAL BEHAVIOUR

__LOOK AT THE PERSON WHEN SPEAKING

2) ACT POSITIVELY

__KEEP CALM

__SHOW EMPATHY
(E.G. UNDERSTAND THE OTHER PERSON'S NEEDS)

3) USE APPROPRIATE VERBAL BEHAVIOUR

__TAKE RESPONSIBILITY FOR YOUR DECISION
(E.G. BE HONEST, MAKE NO EXCUSES, MAKE NO APOLOGY)

__ACCEPT CRITICISM MADE OF YOU

__KEEP ON REFUSING THE REQUEST

LEARNING POINTS

1) AVOID UNASSERTIVE NONVERBAL BEHAVIOUR

___DON'T LOOK AWAY WHEN SPEAKING

2) AVOID NEGATIVE REACTIONS

___DON'T BECOME AGITATED

___ DON'T MAKE PERSONAL ATTACKS

3) AVOID INAPPROPRIATE VERBAL BEHAVIOUR

___DON'T SHIRK RESPONSIBILITY FOR YOUR DECISION
(E.G. DON'T LIE, DON'T MAKE EXCUSES, DON'T APOLOGISE)

___DON'T DENY CRITICISM MADE OF YOU

___DON'T FORGET TO KEEP ON REFUSING THE REQUEST

LEARNING POINTS

1) NONVERBAL BEHAVIOUR

___SMILE OFTEN WHEN SPEAKING

2) REACTIONS

___REMAIN SEATED

___BE INTERESTED

3) VERBAL BEHAVIOUR

___DON'T USE VOCABULARY WHICH IS BEYOND YOUR LISTENER (E.G. DON'T USE JARGON OR UNNECESSARILY COMPLICATED WORDS)

___SPEAK WITH CLEAR DICTION

___DON'T WORRY ABOUT MISTAKES

The Audiotape 'Books' script

Adapted from McFall & Marston (CRI) 1970
Described in McFall and Lillesand (1971) p. 315.

A friend asks you to return some of her books to the library. She's often done things like this before. You have nothing else planned, but you do not want to return her books.

1. Hi. Look, I'm in a rush. Can you do something for me?

2. Could you return some library books?

3. Why not?

4. Are you busy?

5. Come on. What are friends for?

6. You've always helped me out before.

7. So why won't you help me out today?

8. I'll make it up to you.

9. It wouldn't hurt you.

10. Come on. You're being really mean - it's only a few books.

11. I'd do it for you if you asked me.

12. Ah well. If that's the way you feel I'll just have to pay the fine. Hey - What about lunch on Monday?

The Audiotape 'Money' script - adapted from McFall and Marston, 1970.

A friend sees you in the cafe. She wants to borrow money. She has often done this before. You have the money. You do not want to lend it.

1. Hi. It's good to see you. Will you do me a favour?

2. I'm dying for a coffee. Have you got 25¢ I can borrow?

3. Why not?

4. Are you broke?

5. Come on. What are friends for?

6. You've always lent me the money before.

7. So why won't you lend it to me today?

8. I suppose you don't trust me.

9. It's not going to kill you.

10. Come on, you're being mean - it's only 25¢.

11. I'd lend it to you if you asked me.

12. Ah well, if that's the way you feel, I'll borrow it from someone else - keep me a seat - I'll be back.

The Audiotape 'Bicycle' script

You are in the library when a friend asks to borrow your bike again. You do not want to lend it.

1. Boy, am I glad to see you. I've got a problem and I was afraid I wouldn't find anyone to help.

2. Can I borrow your bike?

3. Why not?

4. Do you need it yourself?

5. Well, when do you want it? I'll get it back to you on time.

6. I don't understand. Whenever I've asked to borrow your bike before, you've always lent it to me.

7. So what's the difference? Why won't you lend it to me today? I wouldn't do anything to your bike.

8. Look, I'm careful. I've never done anything to your bike before, have I?

9. But I'm not going to lose it or anything.

10. Come on, you're being stupid, why won't you lend it to me.

11. But I'm not going to do anything wrong.

12. All right, I suppose I know how you feel. Sometimes I don't want to lend things either.

The Pre-test, Recall and Generalization Behavioural Rating Scale

Subject number _____

Rater number _____

Condition Pre____ Recall ___ Generalization ___

To be completed by experimenter after rating is concluded

	raw score	trans-posed score

(1) Empathy was: (sympathy with the needs of the prompt, regardless of the decision, e.g. what's the matter? I understand that you need it.....)

1 not present — 2 — 3 evident to some extent — 4 — 5 frequent

(2) Agreement with the request was: (e.g. Yes I'll do it, O.K. etc.)

1 not present — 2 — 3 evident to some extent — 4 — 5 frequent

(3) Subject looked at the other person when speaking

1 not present — 2 — 3 evident to some extent — 4 — 5 frequent

(4) Agitation was: (the degree to which subjects lacked control over their movements e.g. unnecessary, non-verbal behaviours)

1 not present — 2 — 3 evident to some extent — 4 — 5 frequent

(5) Apology was: (e.g. I'm sorry, I'm afraid not)

1 not present — 2 — 3 evident to some extent — 4 — 5 frequent

(6) Lies/excuses were: (e.g. I need it myself, I'm broke etc.)

1 not present — 2 — 3 evident to some extent — 4 — 5 frequent

(7) Honesty was: [bike: I might need it], I worry, I feel uncomfortable about..., I don't want to, I want it myself)

1 not present — 2 — 3 evident to some extent — 4 — 5 frequent

raw score	transposed score

(8) Personal attacks were: (blame, criticism e.g. you never pay me back. What, again? You need to learn to budget).

1 not present 2 3 evident to some extent 4 5 frequent

(9) Acceptance of criticism was: (e.g. reaction to "You've always lent it before", "You're being mean", If its so stupid

1 not present 2 3 evident to some extent 4 5 frequent

(10) Repeated refusal was: (e.g. "No", "I don't want to")

1 not present 2 3 evident to some extent 4 5 frequent

CONFLICT RESOLUTION INVENTORY (FORM S10)

How much of a problem do you feel you have when it comes to saying "No" to people who ask you to do things you don't want to do?

Not much of a problem	A mild problem	A moderate problem	A significant problem	A very significant problem

The following situations are typical of those encountered by many college students. Read each situation carefully and check which one of the five alternative responses you would be most likely to make if the situation actually happened to you.

1. Suppose you want to sell a book for $5. A mere acquaintance of yours says that he or she really needs the book, can't find it anywhere, but can only pay $3 for it. You're sure you can easily get $5 for it, and you're broke and need the $5 to pay off a debt.

___ a. I would refuse and would feel comfortable doing so.
___ b. I would refuse but would feel uncomfortable doing so
___ c. I would not refuse but would feel uncomfortable because I didn't.
___ d. I would not refuse, even though I might prefer to, but would not feel particularly uncomfortable because I didn't.
___ e. I would not refuse because it seems to be a reasonable request.

2. Suppose a mere acquaintance asks you to go with her or him to get something to eat. You know that this person will not go if you refuse to accompany her or him; but you have just finished eating.

___ a. I would refuse and would feel comfortable doing so.
___ b. I would refuse but would feel uncomfortable doing so
___ c. I would not refuse but would feel uncomfortable because I didn't.
___ d. I would not refuse, even though I might prefer to, but would not feel particularly uncomfortable because I didn't.
___ e. I would not refuse because it seems to be a reasonable request.

3. Suppose your flatmate is constantly borrowing money from you in order to buy snacks, but never pays you back. You are getting rather annoyed at this and have decided to stop lending money. Besides, you're really low on money and have put yourself on a tight budget.

___ a. I would refuse and would feel comfortable doing so.
___ b. I would refuse but would feel uncomfortable doing so
___ c. I would not refuse but would feel uncomfortable because I didn't.
___ d. I would not refuse, even though I might prefer to, but would not feel particularly uncomfortable because I didn't.
___ e. I would not refuse because it seems to be a reasonable request.

4. Suppose a mere acquaintance is going to fly home over the weekend and will have to miss a class on Friday morning. Even though you are not enrolled in that class, the acquaintance asks, as a favor, that you go to the class and take notes on Friday. But you have an exam on Friday afternoon.

___ a. I would refuse and would feel comfortable doing so.
___ b. I would refuse but would feel uncomfortable doing so.
___ c. I would not refuse but would feel uncomfortable because I didn't.
___ d. I would not refuse, even though I might prefer to, but would not feel particularly uncomfortable because I didn't.
___ e. I would not refuse because it seems to be a reasonable request.

5. Suppose that your flatmate is the chairperson of a fund-raising campaign that you both belong to, and asks you to help out by soliciting door-to-door for about 3 hours, right when you should be studying for an exam.

___ a. I would refuse and would feel comfortable doing so.
___ b. I would refuse but would feel uncomfortable doing so.
___ c. I would not refuse but would feel uncomfortable because I didn't.
___ d. I would not refuse, even though I might prefer to, but would not feel particularly uncomfortable because I didn't.
___ e. I would not refuse because it seems to be a reasonable request.

6. A friend in one of your classes borrowed your class notes several weeks ago, then failed to return them at the next class, thus forcing you to take notes on scrap paper. Now this friend is asking to borrow your notes again, but there is going to be an exam on the next day of class.

___ a. I would refuse and would feel comfortable doing so.
___ b. I would refuse but would feel uncomfortable doing so.
___ c. I would not refuse but would feel uncomfortable because I didn't.
___ d. I would not refuse, even though I might prefer to, but would not feel particularly uncomfortable because I didn't.
___ e. I would not refuse because it seems to be a reasonable request.

7. A class project has been planned. There are several things to do before the project is finished, but instead of asking the other members to do the work, the chairperson, whom you hardly know, asks if you would help to do it. You have already done your share of the work and also have made plans to do something else.

___ a. I would refuse and would feel comfortable doing so.
___ b. I would refuse but would feel uncomfortable doing so.
___ c. I would not refuse but would feel uncomfortable because I didn't.
___ d. I would not refuse, even though I might prefer to, but would not feel particularly uncomfortable because I didn't.
___ e. I would not refuse because it seems to be a reasonable request.

8. A friend of yours comes to your door selling magazine subscriptions. He or she says it would be a personal favor if you bought one since he or she is trying to win a contest. You can't find any especially interesting magazines on your friend's list, and besides, you feel they are slightly over-priced.

___ a. I would refuse and would feel comfortable doing so.
___ b. I would refuse but would feel uncomfortable doing so.
___ c. I would not refuse but would feel uncomfortable because I didn't.
___ d. I would not refuse, even though I might prefer to, but would not feel particularly uncomfortable because I didn't.
___ e. I would not refuse because it seems to be a reasonable request.

9. A slight acquaintance of yours asks to borrow $5 until next week. You have the money but you would have to postpone buying something you wanted until the loan was repaid.

___ a. I would refuse and would feel comfortable doing so.
___ b. I would refuse but would feel uncomfortable doing so.
___ c. I would not refuse but would feel uncomfortable because I didn't.
___ d. I would not refuse, even though I might prefer to, but would not feel particularly uncomfortable because I didn't.
___ e. I would not refuse because it seems to be a reasonable request.

10. On your way back home you meet a slight acquaintance who asks you to carry a heavy package home for her or him since she or he is not going home for a while, but it would be quite cumbersome since you are carrying packages of your own.

___ a. I would refuse and would feel comfortable doing so.
___ b. I would refuse but would feel uncomfortable doing so.
___ c. I would not refuse but would feel uncomfortable because I didn't.
___ d. I would not refuse, even though I might prefer to, but would not feel particularly uncomfortable because I didn't.
___ e. I would not refuse because it seems to be a reasonable request.

ASST

Directions

It is obvious that people think a variety of things when they are responding in different situations. These thoughts, along with feelings, determine what kind of responses a person will make.

Below is a list of things which you may have thought to yourself at some time while responding to the situations you just completed. Read each item and decide how frequently you may have been thinking a similar thought during the situation.

Please circle a number from 1 to 5 for each item. The scale is interpreted

1 = hardly ever had the thought

2 = rarely had the thought

3 = sometimes had the thought

4 = often had the thought

5 = very often had the thought

Please answer as honestly as possible.

Experimenter Use Only		

1. I was thinking it was not worth the hassle to refuse.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

2. I was worried about what the other person would think about me if I refused.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

3. I was thinking that I would probably feel guilty later if I refused to do the person a favour.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

4. I was thinking that it is not my responsibility to help people I hardly know.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

5. I was thinking that there didn't seem to be a good reason why I should say "yes."

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

6. I was thinking that it was my responsibility to help those who need me.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

ASST-2

7. I was thinking that I just didn't feel like saying "yes."

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

8. I was worried that the person might beocme angry if I refused.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

9. I was thinking that this request is an unreasonable one.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

10. I was thinking that the person could ask someone else.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

11. I was thinking that it is better to help others than to be self-centred.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

12. I was thinking that I will be happy later if I don't commit myself to something I don't want to do.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

13. I was thinking that I would get embarrassed if I refused.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

14. I was concerned that the person would think I was selfish if I refused.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

15. I was thinking that this person really seems to need me.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

16. I was thinking that I am perfectly free to say "No."

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

ASST-3

17. I was thinking that if I don't say "No" now, I'll end up doing something I don't want to do.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

18. I was thinking that it is always good to be helpful to other people.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

19. I was thinking that the person might be hurt or insulted if I refused.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

20. I was thinking that this person should take care of her own business.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

21. I was thinking that this request seems pretty reasonable.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

22. I was thinking that people will dislike me if I always refuse.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

23. I was thinking that my own plans are too important.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

24. I was thinking that I didn't have to please this person by giving in to her request.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

25. I was thinking that it is morally wrong to refuse someone who needs help.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

26. I was thinking that if I commit myself, it will interfere with my plans.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

ASST-4

27. I was thinking that a friendly person would not refuse in this situation.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

28. I was thinking that I am too busy now to say "Yes."

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

29. I was afraid that there would be a scene if I said "No."

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

30. I was thinking that since I hardly know the person, why should I go out of my way for her.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

31. I was thinking that it doesn't matter what the other person thinks of me.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

32. I was thinking that this request is an imposition on me.

1	2	3	4	5
hardly ever	rarely	sometimes	often	very often

The Reactive Effects Questionnaire

Male ☐
Female ☐

Age _____

(1) How comfortable were you saying "no" in the first role play?

1	2	3	4	5
extremely uncomfortable		neither comfortable nor uncomfortable		very comfortable

(2) Were you more comfortable saying "no" in the second and third role plays?

1	2	3	4	5
no		no more or less comfortable		yes

(3) How helpful was the training?

1	2	3	4	5
very helpful		neither helpful nor unhelpful		not at all helpful

(4) Now you know these techniques, will you use them in real life?

1	2	3	4	5
yes		maybe		no

(5) Why?

(6) In the last two role plays, why did you respond in the way you did?

(7) What is your attitude to lending things?

(8) What do you think was the purpose of this study?